

Stormwater Community Baseline Survey

Table of Contents.....	i
Table of Figures.....	ii
A. Executive Summary.....	1
B. Introduction.....	7
Purpose	8
Method.....	9
Sample.....	9
Frequencies and Cross Tabulations	10
C. Significant Findings	11
Perceptions of the Seriousness and Impacts of Pollution	11
Understanding of Major Contributors to Water Pollution	14
Perceived Responsibility for Solving Water Pollution Problems.....	16
Use Patterns and Disposal Practices of Pollution Related Products.....	17
Awareness of the Storm Drain System	22
Perceptions of Stormwater Pollution	27
Willingness to Obtain Information About Pollution Prevention Practices.....	30
Awareness of City and County Stormwater Programs.....	32
Exposure to Stormwater Information.....	34
Appendix A: Demographic Summary	
Appendix B: Questionnaire & Frequencies	
Appendix C: Verbatim Responses on “Only Rain down the Drain”	
Appendix D: Cross Tabulation Tables	

TABLE OF FIGURES

Figure 1. Most Serious Environmental Issue (N=400).....	11
Figure 2. Existence of Nearby Body of Water (N=400).....	12
Figure 3. Perceived Cleanliness of Nearest Body of Water (N=264)	12
Figure 4. Main Impacts of Water Pollution (N=400)	13
Figure 5. Top-of-Mind Contributors to Water Pollution (N=400).....	14
Figure 6. Mean Ranking of Contributors to Water Pollution	15
Figure 7. Responsibility for Solving Water Pollution Problems (N=400).....	16
Figure 8. Reported Behaviors within the Last Year (N=400)	17
Figure 9. Disposal Methods for Pesticides (N=156)	18
Figure 10. Disposal of Yard Waste (N=326)	19
Figure 11. Disposal of Pet Waste (N=145).....	20
Figure 12. Disposal of Used Motor Oil (N=102)	21
Figure 13. Presence of Storm Drains in Neighborhood (N=400).....	22
Figure 14. Familiarity with the Storm Drain System (N=400)	22
Figure 15. Assessment of the Storm Drain System (N=400).....	23
Figure 16. Knowledge of Where Stormwater Goes (N=400)	24
Figure 17. Concept Check: Storm Drain System vs. Sewer System (N=400)	25
Figure 18. Concept Check: Treatment of Stormwater (N=400)	26
Figure 19. First Response to Causes of Stormwater Pollution (N=400)	27
Figure 20. Total Responses to Causes of Stormwater Pollution (N=1011)	28
Figure 21. Those Very Willing to Help Reduce Stormwater Pollution (N=400).....	29
Figure 22. Willingness to Use Information Sources (N=400).....	30
Figure 23. Preferred Information Source (N=400).....	31
Figure 24. Responsible Agency for Stormwater Management (N=400)	32
Figure 25. Willingness to Pay an Extra Fee for Stormwater Pollution Prevention (N=400)	33
Figure 26. Awareness of News Reports or Advertising on Stormwater Issues (N=400)	34
Figure 27. Source of Stormwater Information (N=146)	35
Figure 28. Top-of-Mind Perceptions of “Only rain down the drain”	36

A. EXECUTIVE SUMMARY

A public opinion survey was conducted in March through May 2003 for the City of Stockton Department of Municipal Utilities Stormwater Division (City) and the County of San Joaquin Department of Public Works (County) to establish a baseline for assessing public perceptions and behaviors related to stormwater quality management. The study was designed and implemented as a part of the public education and outreach program mandated by the National Pollutant Discharge Elimination System (NPDES) Permit issued by the California Regional Water Quality Control Board, Central Valley Region.

This study was implemented through a telephone survey of 400 heads of household in the Stockton Urbanized Area (Stockton) to provide baseline data about public attitudes, perceptions and behaviors that will be helpful in the strategic development and implementation of Stockton's public awareness campaign. The survey provided information about the following issues:

- ♦ Perceptions of the seriousness and impacts of pollution
- ♦ Understanding of major contributors to water pollution
- ♦ Use patterns and disposal practices of pollution related products
- ♦ Awareness of storm drains and the storm drain system
- ♦ Willingness to participate in pollution prevention practices
- ♦ Awareness of city and county stormwater programs
- ♦ Exposure to stormwater information

The principal findings of the survey are listed on the following five pages.

Perceptions of the Seriousness and Impacts of Pollution

1. Water pollution ranked highest among a list of six environmental issues according to 39 percent of the respondents. Air pollution followed with 29 percent.
 - ♦ *This ranking is similar to what was found in a study conducted by the Bay Area Management Agencies Association (BASMAA) in January 2003. A separate study by the Contra Costa Clean Water Program in June 2002 showed that air pollution was seen as more serious than water pollution.*
2. Two out of three (66%) respondents affirmed the existence of a nearby body of water. Those who were not aware of a water body tended to be Latino, speak Spanish, have less than a high school education and live in zip codes 95205/95215 or 95206.
3. Forty-eight percent (48%) of the respondents who had identified a body of water perceived it to be “very dirty.” Another 30 percent felt it was “somewhat dirty.” This finding indicates that Stockton residents realize that the waterways are at risk.
4. Respondents identified the top two impacts of water pollution as harming the natural environment (32%) and causing human health problems (27%).

Understanding of Major Contributors to Water Pollution

5. When asked an open-ended question about the causes of water pollution, 30 percent of the respondents first mentioned people, everyone or residents in general as major contributors to water pollution. Other respondents identified more specific residential sources such as auto fluids (6%), lawn and garden chemicals (4%) and pet waste (1%).
 - ♦ *Bay Area residents tend to mention industry first, whereas Fresno residents point to agriculture. Whether these Stockton residents are claiming responsibility for water pollution or simply blaming other people, it is significant that they realize water pollution is a residential problem.*

6. Using a four-point scale, respondents were asked to rate how much they believed industry, business, residents, agriculture, and transportation contribute to water pollution. Industry was seen as the main contributor with 64 percent indicating the highest level of contribution. It is interesting to note the changes in rank among the various contributors to water pollution as the respondents had time to think about and rate each contributor. "Residents" moved down just below "businesses" to tie with "agriculture."
 - ♦ *Industry also ranks highest with Bay Area residents. Bay Area and Fresno residents also tend to place more blame on agriculture than is evidenced here.*
7. Thirty-two percent (32%) of the respondents identified "everyone" as having responsibility for solving water pollution problems. The city government (18%) and the state government (12%) gathered the next most frequent responses. The county government was only identified by 3 percent of the respondents.

Use Patterns and Disposal Practices of Pollution Related Products

Pesticides

8. Thirty-nine percent (39%) of respondents reported using pesticides or weed killers within the last year. These respondents tended to be those over the age of 55, those with an annual income above \$50,000, homeowners and Caucasians.
9. Of the respondents who reported using pesticides, 38 percent reported using it all up or storing for future use (10%). Twenty-three percent (23%) knew to take the leftovers to a household hazardous waste collection event. Unfortunately, 21 percent of the respondents reported that they threw remaining product in the trash.

Yard Waste

10. Nearly two thirds (62%) of the respondents reported taking care of their own yard. These respondents tended to have an annual income above \$75,000 and homeowners.

11. Fifty percent (50%) of the respondents who take care of their own yard or using a yard care service (N=326) correctly reported placing the waste on the street. These respondents tended to be homeowners, Caucasian and earning an annual income of \$75,000 or more. Fourteen percent (14%) take the yard waste to the landfill and 11 percent place it directly in the household trash bin. Only seven percent (7%) compost the yard waste.

Pet Waste

12. Just over a third of the respondents (36%) reported regularly taking a pet on walks. These respondents tended to be homeowners and earn over \$75,000 annually.
13. These respondents were asked to identify their method of pet waste disposal. Seventy percent (70%) reported bagging it and putting it in the trash. This figure, however, probably reflects the fact that residents know the socially responsible behavior, and may be reporting what they should be doing rather than what they actually practice.

Used Motor Oil

14. Only twenty-six percent (26%) of the respondents reported changing their motor oil at home within the last year.
15. Seventy-five percent (75%) of the do-it-yourselfers reported taking the used oil to a household hazardous waste center.

Awareness of the Storm Drain System

16. Eighty-three percent (83%) of the respondents reported the existence of storm drains in their neighborhood. English speakers and those with an annual income of over \$50,000 tended to frequently report their existence, whereas Spanish speakers, Latinos or those living in zip code areas of 95205/95215 tended to say that they did not exist.
17. Twenty-five percent (25%) of the respondents said they were “very familiar” with the storm drain system. These respondents tended to be homeowners. Renters tended to report that they were “not at all familiar” with the system.

18. Respondents were asked to report how well the storm drain system works during the rainy season. Thirty-four percent (34%) reported it works “very well.” These respondents tended to be those living in zip code areas 95209/10/12.
19. When asked to identify where stormwater goes after it flows into the storm drain, the most frequent responses were the Delta (29%) and a river (28%). Eight percent (8%) believed the water went to a treatment plant.
20. When respondents were asked to agree or disagree with the statement about the storm drain system and the sewer system sharing the same underground pipes, 40 percent incorrectly agreed and another 21 percent were unable to decide. Much confusion remains over the differences between the storm drain system and the sewer system.
- ♦ *Bay Area and Fresno residents exhibit similar confusion.*
21. When respondents were asked to agree or disagree with the statement about stormwater being routed to a treatment plant, 49 percent incorrectly agreed and 13 percent were unable to decide. Many still seem to think, or at least hope, that stormwater is being treated before it goes to the local waterways.
22. When asked specifically how the water that flows into storm drains can get polluted, 43 percent of the respondents first mentioned illegal dumping by individuals. As they were allowed to give multiple responses, other sources garnered more votes, but illegal dumping remained in the lead with 20 percent of the total mentions.

Willingness to Participate in Pollution Prevention Practices

23. The vast majority of the respondents indicated that they were “very willing” to engage in eight pollution prevention practices: disposing of litter (95%), keeping the vehicle tuned (95%), avoiding dumping in storm drains (94%), recycling glass, etc. (88%), taking HHW to a disposal center (88%), disposing of pet waste (87%), using less toxic products (83%) and reporting illegal dumping (79%).

24. Respondents indicated a high level of willingness to obtain information about water pollution from all sources mentioned: brochure (86%), information booth (76%), toll-free number (67%), and website (59%).
25. When asked to select a preferred information source from the four listed, 33 percent of the respondents chose “website” and 32% picked “brochure.”

Awareness of the City and County Stormwater Programs

26. When asked to identify the agency responsible for operating and managing the storm drain system, 61 percent of the respondents identified the City of Stockton and 16 percent pointed to San Joaquin County.
27. The majority (59%) of the respondents reported that they would be willing to support an annual tax increase of \$5 to aid the operation of the storm drain system in preventing stormwater pollution. Only nineteen percent (19%) of the respondents maintained this willingness once the additional annual tax increase was suggested at \$20.

Exposure to Stormwater Information

28. Only 37 percent of the respondents reported seeing or hearing television or radio spots, advertisements, or other forms of information about stormwater pollution in the past year.
29. Of those respondents who reported some form of exposure to stormwater pollution prevention information, 67 percent reported seeing something on television.
30. Over two thirds of the respondents (67%) were able to show a fairly good understanding of the slogan “Only rain down the drain.”

B. INTRODUCTION

The City of Stockton Department of Municipal Utilities Stormwater Division (City) and the County of San Joaquin Department of Public Works (County) developed a Storm Water Management Program (SWMP, February 1995) specifying pollution prevention and control measures to protect water quality and the environment in the Stockton Urbanized Area. Implementation of the SWMP is required by the National Pollutant Discharge Elimination System (NPDES) Permit to discharge stormwater, issued by the California Regional Water Quality Control Board, Central Valley Region (CRWCB).

In August 1999, the City and County prepared an updated SWMP as part of the application process to renew its NPDES Permit. The issue of pollutants in municipal stormwater discharges and their sources was revisited as part of the reapplication process. In the August 1999 plan, the City and County identified the following high priority pollutants for the updated SWMP:

- ♦ Heavy metals
- ♦ Sediments
- ♦ Petroleum hydrocarbons from sources such as used motor oil
- ♦ Microbial pathogens
- ♦ Pesticides
- ♦ Sources of acute and chronic aquatic toxicity
- ♦ Nutrients that cause or contribute to the depletion of dissolved oxygen and/or toxic conditions in the receiving water

Knowledge of the possible common sources for these high priority pollutants in the Stockton Urbanized Area is significant to the success of the public outreach effort. They were found to be:

- ♦ Construction sites
- ♦ Industrial/Commercial operations
- ♦ Automobile repair and maintenance
- ♦ Automobile washing
- ♦ Automobile parking
- ♦ Home and garden care activities and product use

- ♦ Disposal of pet waste
- ♦ Disposal of green waste

These high priority pollutants and their sources provided a foundation to the City and County as they established the Public Outreach and Education Program (collectively Public Outreach Program).

The Public Outreach Program is an essential component of the SWMP. Public participation and cooperation is central to the prevention of urban stormwater pollution. The objectives of the Public Outreach Program are to:

- ♦ Measurably increase the knowledge of target communities regarding the storm drain system, impacts of urban runoff on receiving waters, and potential best management practice (BMP) solutions for each of the communities
- ♦ Change the behavior of target communities and thereby reduce pollutant releases to the storm drain system and the environment

The current permit requires public opinion surveys to be conducted during the first, third and fifth years of the Permit to measure the effectiveness of the Public Outreach Program. This study will be used to establish baseline data and guide the strategic planning process for implementing the public outreach component of the SWMP.

Purpose

The baseline public opinion survey was conducted in March-May 2003 to obtain a comprehensive and statistically reliable look at the attitudes, perceptions and behaviors related to knowledge of the storm drain system, high priority pollutants, environmental responsibility, public outreach messages and pollution prevention.

The purpose of this study is to provide the City and County with information about public attitudes, perceptions and behaviors that will be helpful in the development and implementation of its outreach effort. The objectives of the study are to establish baseline data for the following content areas:

- ♦ Perceptions of the seriousness and impacts of pollution

- ◆ Understanding of major contributors to water pollution
- ◆ Use patterns and disposal practices of pollution related products
- ◆ Awareness of storm drains and the storm drain system
- ◆ Willingness to participate in pollution prevention practices
- ◆ Awareness of the city and county stormwater programs
- ◆ Exposure to stormwater information

Method

Panagraph collaborated with City and County staff to design a survey plan and prepare an interview questionnaire. Several drafts were prepared until a final draft was approved. A copy of the questionnaire with frequencies can be found in Appendix B.

The services of AIS Market Research, a Computer Assisted Telephone Interviewing (CATI) facility, were retained to implement the actual telephone interviews. The random digit dialing and computer-based tabulation system assured that residents with unlisted phone numbers could be included in the sample.

Approximately 400, 12-15 minute telephone interviews were conducted throughout the SUA March-May 2003. A pre-test survey was conducted to determine the effectiveness of the questionnaire in measuring the critical variables of the study. Pre-test interviews were included in the final analysis as no significant subsequent changes were made to the content of the questionnaire.

Participant responses were entered directly into the computer while the interview was being conducted. The use of CATI software as a research tool significantly reduces sampling error as skips or branching in the questionnaire are automated or PC-prompted as opposed to being manually processed by the interviewer. All interviewers were trained by an experienced data collection supervisor and were monitored by an on-site supervisor during the entire course of the study. Bilingual interviewers were used to provide Spanish-speaking respondents an opportunity to participate in the survey.

Sample

Four hundred heads of household residing in the Stockton Urbanized Area for at least the past six months were interviewed via telephone on a series of issues dealing with stormwater management and

pollution prevention. A quota sampling procedure was employed to ensure a representative population distribution, according to the 2000 Census.

Demographic factors are presented in this report when they vary from the total survey trends to the degree that they influence the implementation of the outreach effort. Sample demographics are presented in Appendix A.

The sample yields reliability, in the most conservative case, of $\pm 5\%$ at a 95% level of confidence. That is, the data will not vary by more than $\pm 5\%$ in 95 out of 100 replications of the study.

Frequencies and Cross Tabulations

Frequencies represent the exact number of times each response was given and the percentage of all responses to a particular question represented by that number. The survey questionnaire with frequencies is included in Appendix B.

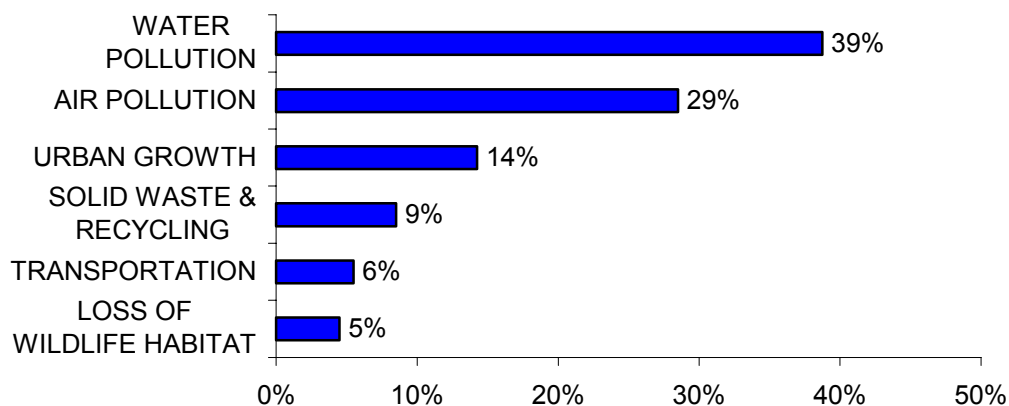
Cross tabulation tables represent how many times, and in what percentage of the time, a particular group gave specific responses. Fluctuations in cross tabulation analyses that are at the 95% confidence level are considered significant. Only those groups that have a different opinion at the highest level indicated by the symbols “+++” and “---” are mentioned in this report. A set of cross tabulation tables is included in Appendix D.

C. SIGNIFICANT FINDINGS

Perceptions of the Seriousness and Impacts of Pollution

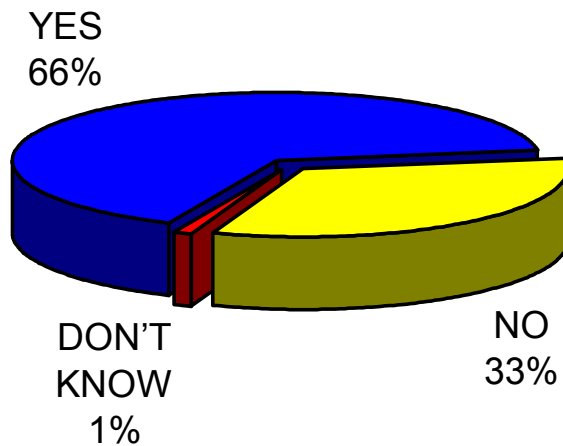
Respondents were read a short list of environmental issues and asked to select the one they felt was the most serious. Water pollution ranked highest according to 39 percent of the respondents. Air pollution followed with 29 percent. This ranking is similar to what was found in a study conducted by the Bay Area Management Agencies Association (BASMAA) in January 2003. A separate study by the Contra Costa Clean Water Program in June 2002 showed that air pollution was seen as more serious than water pollution.

Figure 1. Most Serious Environmental Issue (N=400)



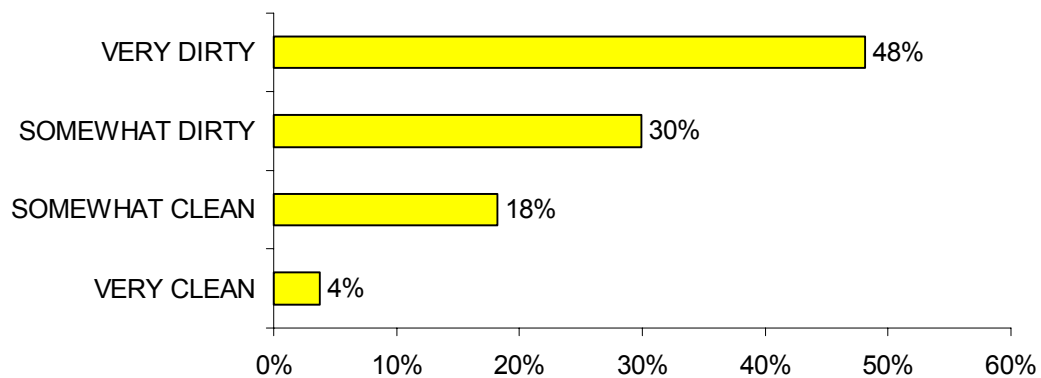
The majority of respondents (66%) were able to affirm the existence of a body of water in close proximity to their home. However, 33 percent responded that no body of water exists nearby. Cross tabulation analysis of key demographic variables revealed that a significantly disproportionate number of those who denied the existence of a body of water have a high school education or less, are Spanish speakers, or reside in the zip codes of 95205/95215 and 95206.

Figure 2. Existence of Nearby Body of Water (N=400)



Of those 264 respondents who affirmed the existence of a nearby body of water, 48 percent identified the said body of water as “very dirty” and another 30 percent felt it was “somewhat dirty.” This finding indicates that Stockton residents realize that the waterways are at risk. Previous Bay Area studies have exhibited more of a bell curve in response to this question.

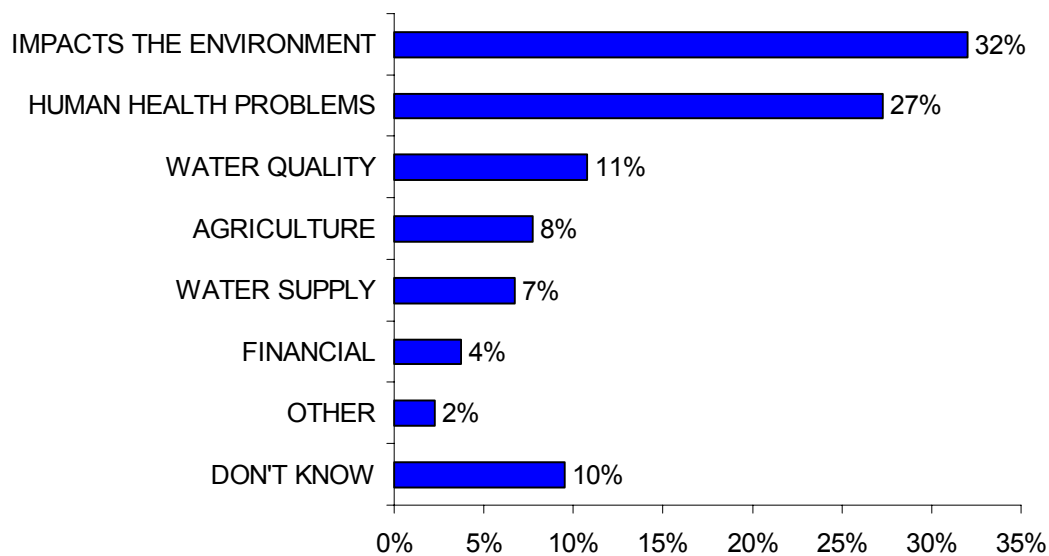
Figure 3. Perceived Cleanliness of Nearest Body of Water (N=264)



When asked to identify the main impacts of water pollution, nearly a third of the respondents (32%) identified environmental problems. This response was closely followed by human health problems at 27 percent.

These two main impacts were also found to be of greatest concern to Bay Area residents. Building campaign messages that relate to these two fundamental concerns will enhance the effectiveness of the public outreach effort.

Figure 4. Main Impacts of Water Pollution (N=400)



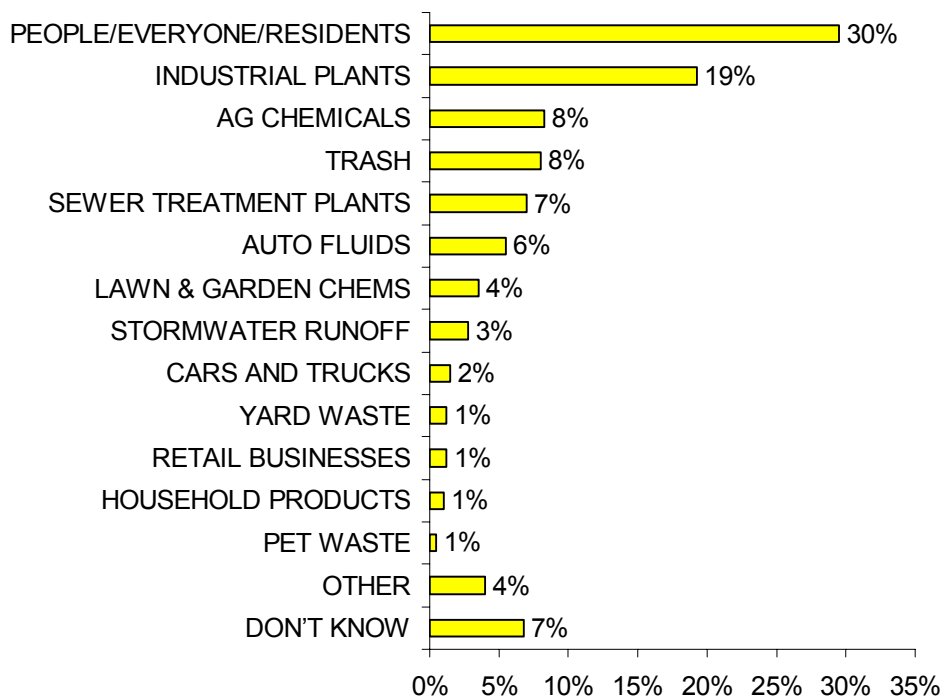
Understanding of Major Contributors to Water Pollution

When asked an open-ended question about the causes of water pollution, 30 percent of the respondents first mentioned people, everyone or residents in general as major contributors to water pollution. Other respondents identified more specific residential sources such as auto fluids (6%), lawn and garden chemicals (4%) and pet waste (1%).

Cross tabulation analysis revealed that a significant portion of the Latino respondents pointed to auto fluids, whereas homeowners were significantly underrepresented in the group that mentioned people, everyone, or residents.

Bay Area residents tend to mention industry first, whereas Fresno residents point to agriculture. Whether these Stockton residents are claiming responsibility for water pollution or simply blaming other people, it is significant that they realize water pollution is a residential problem.

Figure 5. Top-of-Mind Contributors to Water Pollution (N=400)



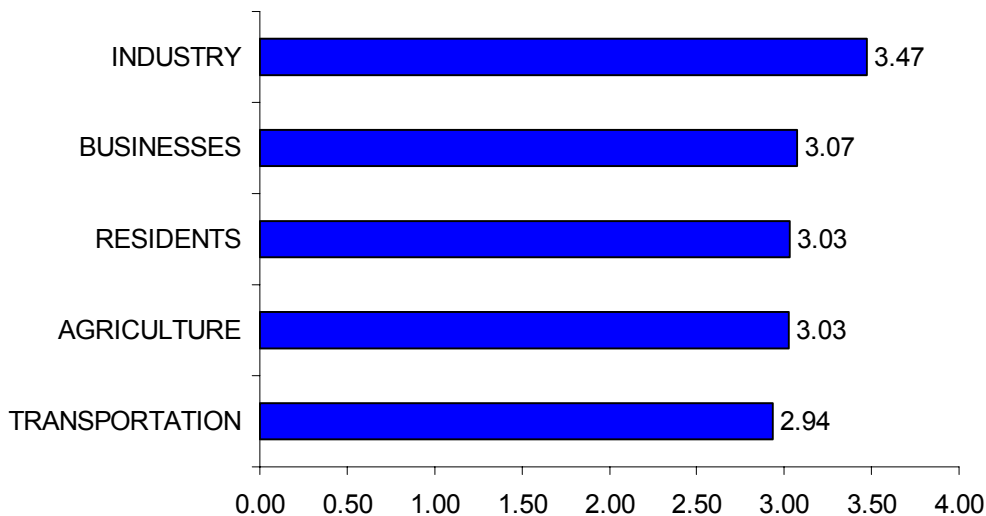
Respondents were then asked to rate various classes of contributors to water pollution. A mean rating was calculated for each contributor by establishing a four-point scale:

- 4 = contributes A LOT to water pollution
- 3 = contributes SOME to water pollution
- 2 = contributes A LITTLE to water pollution
- 1 = DOESN'T contribute AT ALL to water pollution

It is interesting to note the changes in rank among the various contributors to water pollution as the respondents had time to think about and rate each contributor. “Residents” moved down just below “businesses” to tie with “agriculture.” Industry was seen as the main contributor with 64 percent indicating the highest level of contribution.

Industry also ranks highest with Bay Area residents. Bay Area and Fresno residents also tend to place more blame on agriculture than is evidenced here.

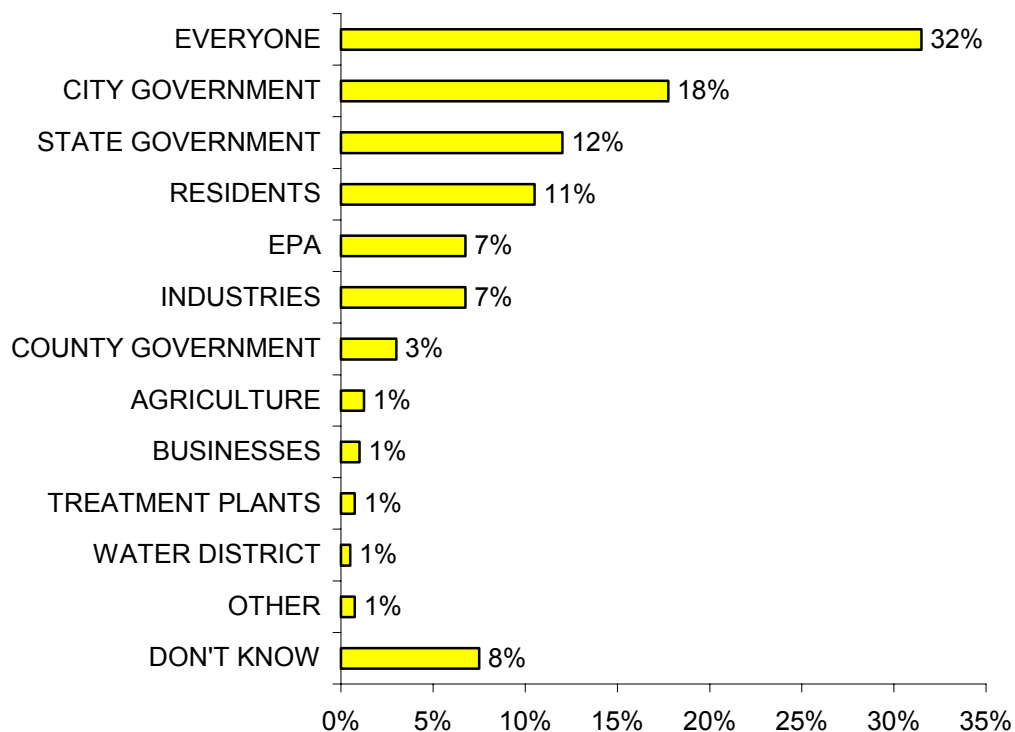
Figure 6. Mean Ranking of Contributors to Water Pollution



Perceived Responsibility for Solving Water Pollution Problems

Respondents were additionally asked to identify the party they believed to be responsible for solving water pollution problems. Nearly a third of the respondents (32%) identified “everyone” and another 11 percent pointed to “residents.” Eighteen percent (18%) mentioned the City and three percent (3%) suggested the County.

Figure 7. Responsibility for Solving Water Pollution Problems (N=400)

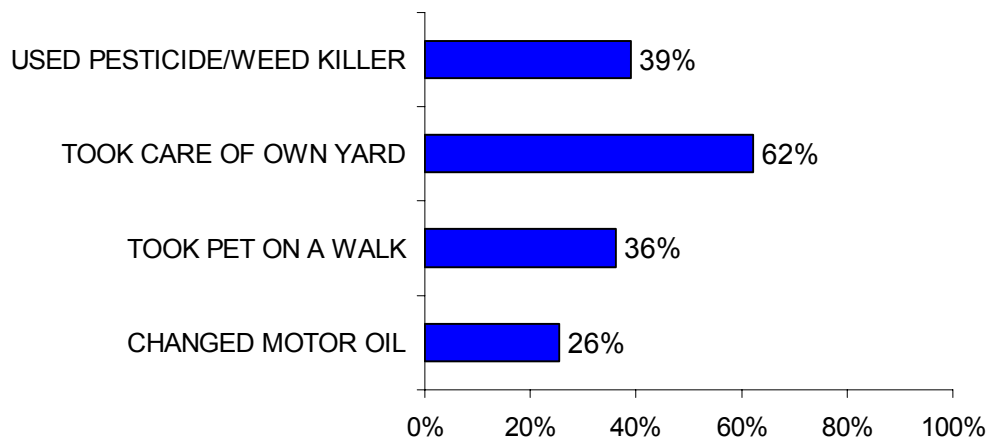


Use Patterns and Disposal Practices of Pollution Related Products

Respondents were asked a series of questions regarding their use patterns and disposal practices of substances identified as contributing to pollution. Pesticide usage at 39 percent was slightly lower than the typical 41 to 45 percent for the Bay Area and Fresno. The majority (62%) of respondents reported taking care of the yard, and just over a third (36%) regularly take pets on a walk. Cross tabulation analysis revealed that high-income homeowners are significantly represented among these groups.

Only 26 percent of the respondents reported changing their motor oil in the last year. Fresno and the Bay Area tend to have 30 to 33 percent. Cross tabulation analysis showed that males, Spanish speakers, those with less than a high school education and residents in the zip codes 95205/95215 are most likely to be the do-it-yourselfers.

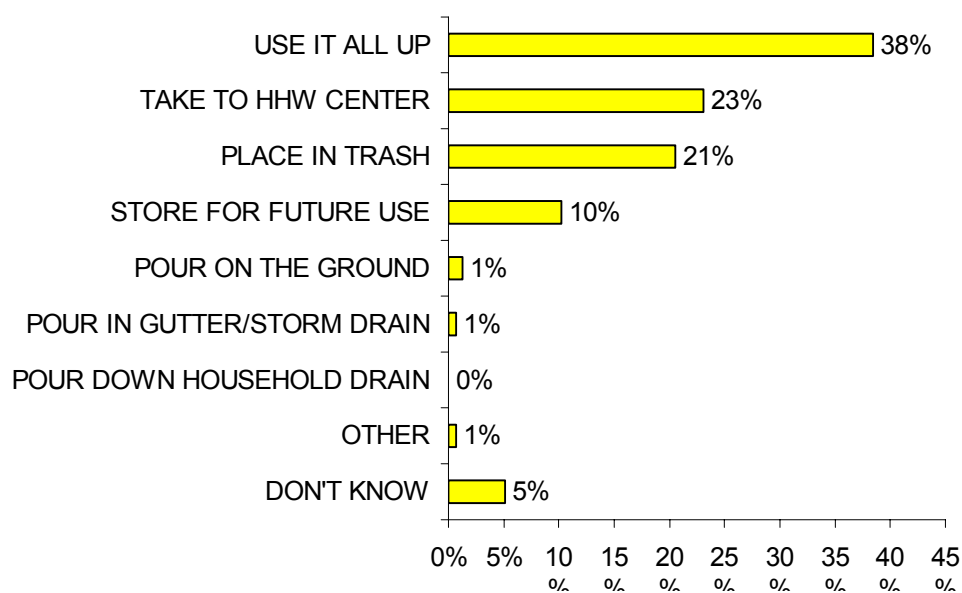
Figure 8. Reported Behaviors within the Last Year (N=400)



Pesticides and Weed Killers

Of the 156 respondents who reported using pesticides or weed killers during the last year, 38 percent reported “using it all up” or “storing for future use” (10%). Twenty-three percent (23%) knew to take the leftovers to a household hazardous waste collection event. Unfortunately, 21 percent of the respondents reported that they threw remaining product in the trash. Cross tabulation analysis revealed that Caucasians are more likely to use all of the pesticides.

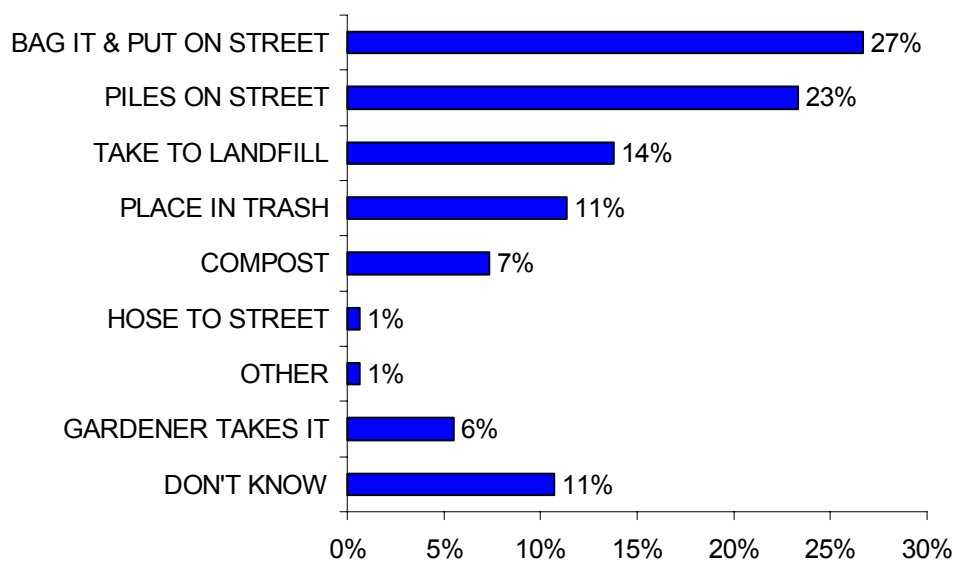
Figure 9. Disposal Methods for Pesticides (N=156)



Yard Waste

The 326 respondents who reported either taking care of their own yard (N=249) or using a yard care service (N=77) were asked to report the typical method by which they dispose of their yard waste. Twenty-seven percent (27%) of the respondents reported that they generally bag it and put it on the street, while another 23 percent mentioned putting it in piles on the street. Those most likely to follow the City's directions to place piles at the curb are high-income homeowners and Caucasians. Fourteen percent (14%) take the yard waste to the landfill and 11 percent place it directly in the household trash bin. Only seven percent (7%) compost the yard waste.

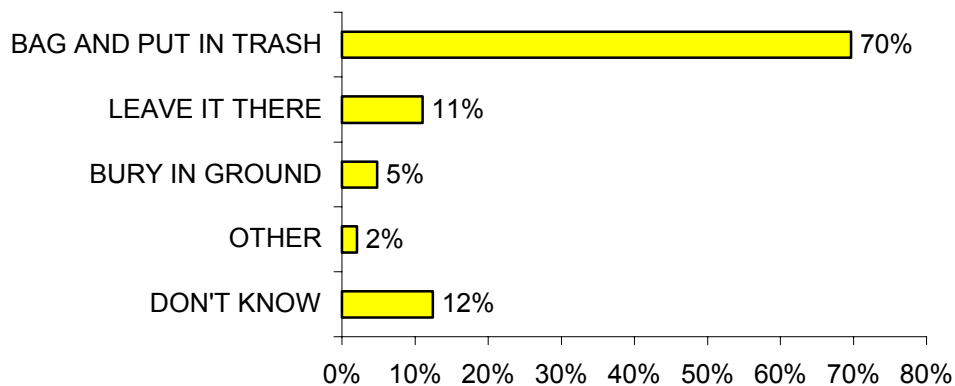
Figure 10. Disposal of Yard Waste (N=326)



Pet Waste

Of the 145 respondents who indicated that they had a pet at home that was regularly taken for walks, 70 percent reported that they were in the habit of bagging their pet's waste on walks. Since water quality data points to the existence of animal waste in the local waterways, many of the respondents may be reporting what they know they *should* be doing. It is recommended that an additional question be included in the follow-up survey that asks, "In the last year, have you ever left it there?" Cross tabulation analysis revealed that homeowners, females and those with a college education were more likely to report bagging the waste and placing it in the trash.

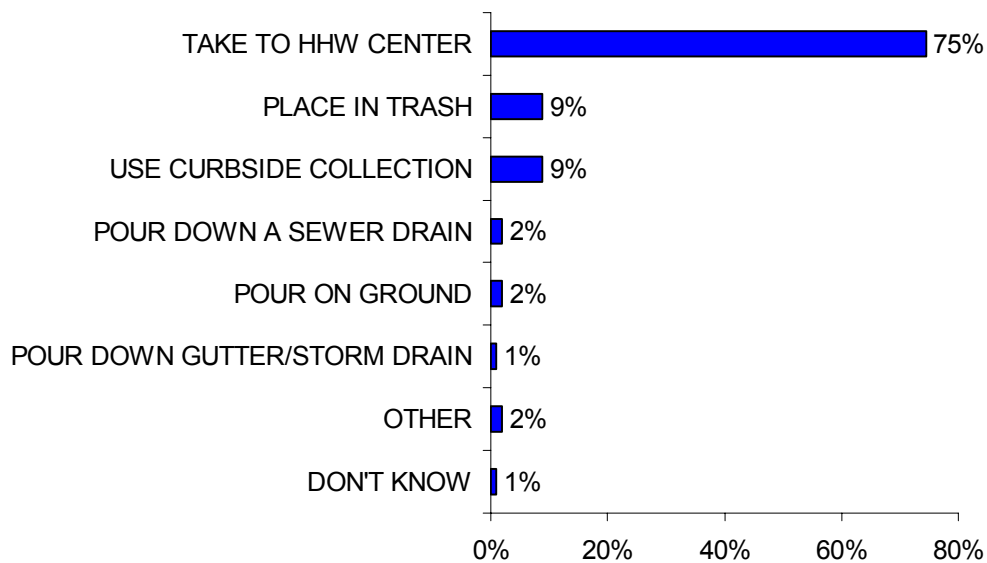
Figure 11. Disposal of Pet Waste (N=145)



Automotive Fluids

Of the 102 respondents who reported changing the motor oil in the last year, three out of four (75%) reported that they took the used motor oil to a hazardous waste collection center. Another nine percent (9%) reported using curbside collection despite the fact that the City and County don't offer such a service. Fourteen percent (14%) indicated that they put the used oil in the trash, down the sewer, on the ground or down a storm drain.

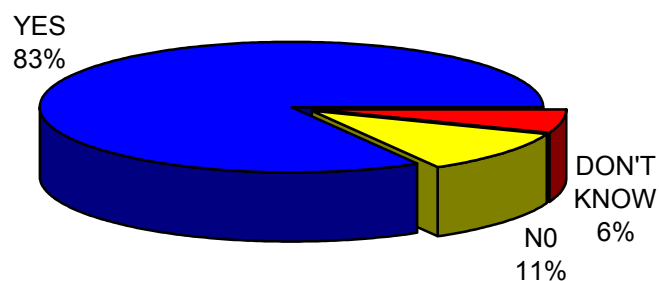
Figure 12. Disposal of Used Motor Oil (N=102)



Awareness of the Storm Drain System

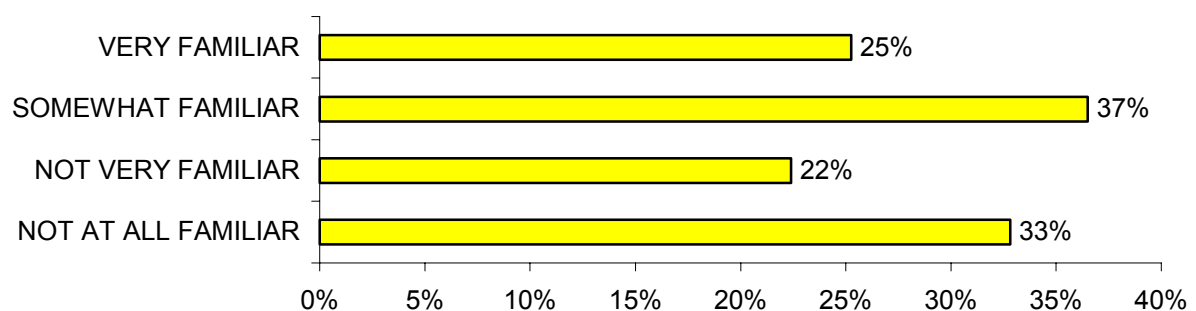
The vast majority (83%) of respondents reported that they are aware of the presence of storm drains in their neighborhood. English speaking respondents earning above \$50,000 annually were significantly more aware of the presence of storm drains. Spanish speaking respondents, Latinos, those earning less than \$25,000 annually and those residing in the zip codes 95205/95215 were more likely to indicate that there weren't any storm drains in their neighborhoods.

Figure 13. Presence of Storm Drains in Neighborhood (N=400)



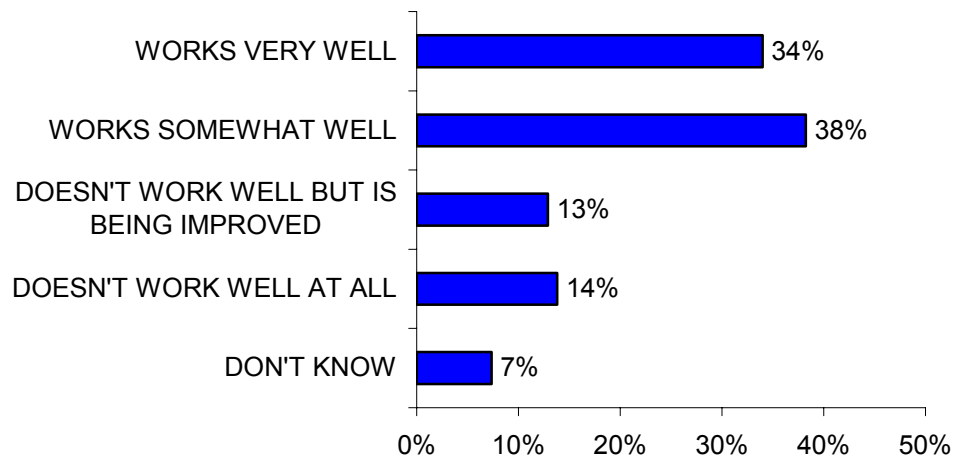
Respondents were then asked how familiar they were with the storm drain system in their area. While 25 percent of respondents indicated that they were “very familiar” with the system, 33 percent of the respondents indicated that they are “not at all familiar.” Not surprisingly, homeowners were significantly more familiar with the system while renters indicated more often that they were “not at all familiar” with the system.

Figure 14. Familiarity with the Storm Drain System (N=400)



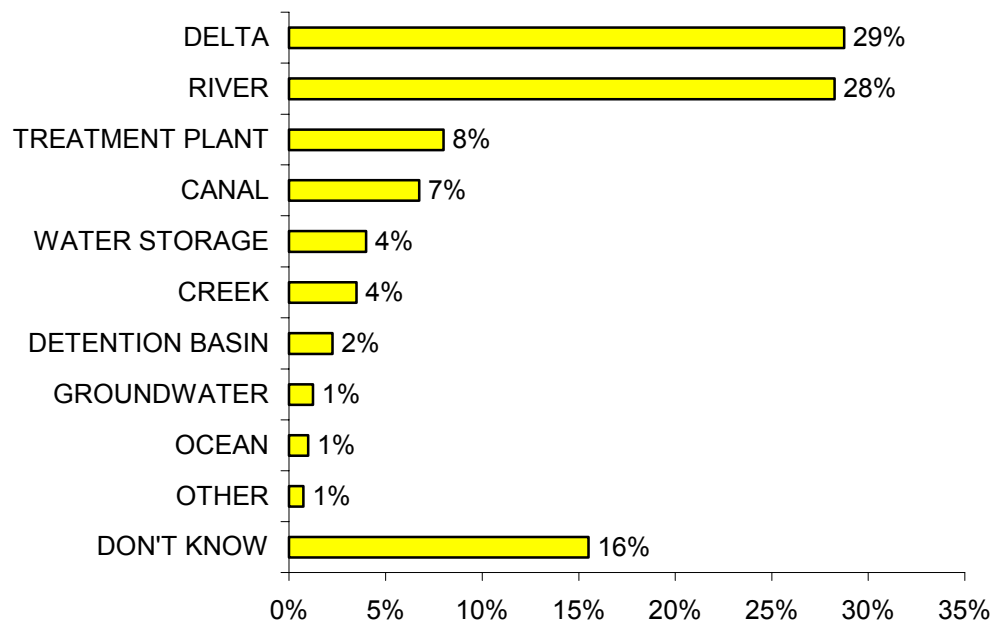
Respondents were then asked to rate how well they believe the storm drain system works during the rainy season. Thirty-four percent (34%) of the respondents indicated that the storm drain system works “very well,” and only 14 percent reported that they “don’t work well at all.” Cross tabulation of the data revealed that those older than 55 years of age, homeowners, those with an annual income of over \$75,000, and those living in zip code areas 95209/10/12 tended to respond that they work very well.

Figure 15. Assessment of the Storm Drain System (N=400)



When asked to identify where stormwater goes after it flows into the storm drains, the vast majority of the respondents were able to cite a correct answer mentioning one of Stockton's waterways. The most frequent responses were the Delta (29%) and a river (28%). These respondents tended to be English speaking and have a graduate degree. Eight percent (8%) believed the water went to a treatment plant and four percent (4%) indicated that water was stored.

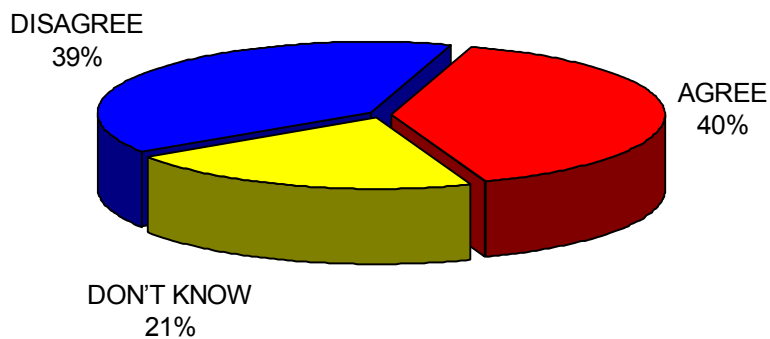
Figure 16. Knowledge of Where Stormwater Goes (N=400)



In order to probe further into their knowledge of the storm drain system, all respondents were asked to agree or disagree with the following statement: *Our community's storm drain and sewer systems share the same underground pipe system.* Forty percent (40%) incorrectly agreed with this statement and 21 percent stated that they didn't know. Cross tabulation analysis reveals that more people between the ages of 18 and 24, as well as those with only a high school education incorrectly agreed with the statement. A significant number of respondents over the age of 55 simply answered that they did not know. Bay Area and Fresno residents exhibit similar confusion.

Figure 17. Concept Check: Storm Drain System vs. Sewer System (N=400)

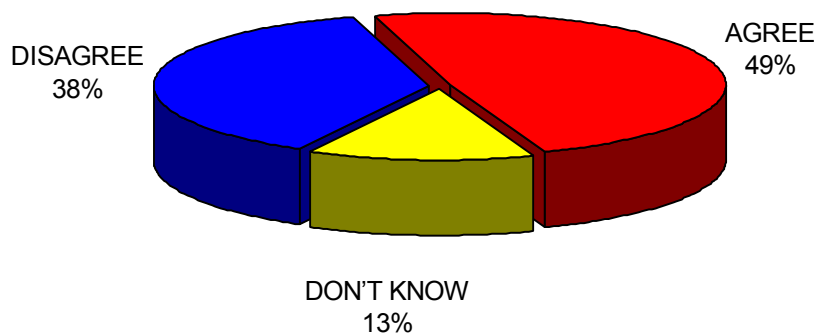
"Our community's storm drain and sewer systems share the same underground pipe systems. (N=400)"



Respondents were then asked to agree or disagree with a statement designed to probe into the treatment issue: *Water and other substances that flow through the storm drains go to a treatment plant to be processed and filtered to remove pollutants.* The largest group of respondents (49%) incorrectly agreed and 13 percent didn't know. Thirty-eight percent (38%) understood that stormwater is not treated and correctly disagreed with this false statement. Cross tabulation analysis revealed that those with only a high school diploma were more likely to agree. Those who correctly disagreed with this statement, tended to be residents who earn an annual income of over \$75,000.

Figure 18. Concept Check: Treatment of Stormwater (N=400)

Water and other substances that flow through the storm drains go to a treatment plant to be processed and filtered to remove pollutants.
(N=400)

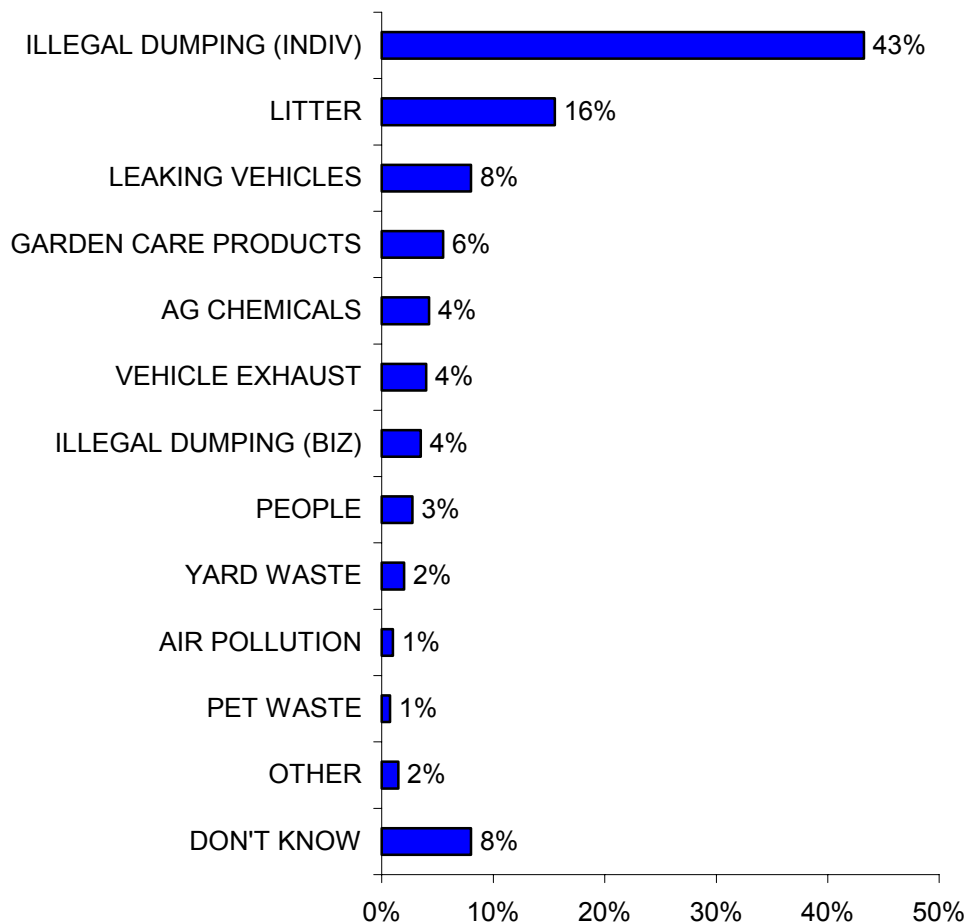


Despite the fact that only eight percent (8%) stated that stormwater is routed to a treatment plant (Figure 16), these two concept checks confirm that much confusion remains about the difference between the storm drain system and the sewer system. Similar confusion exists in Fresno and the Bay Area where focus group discussions have demonstrated that many think or at least hope that stormwater is treated before it is released to the local waterways.

Perceptions of Stormwater Pollution

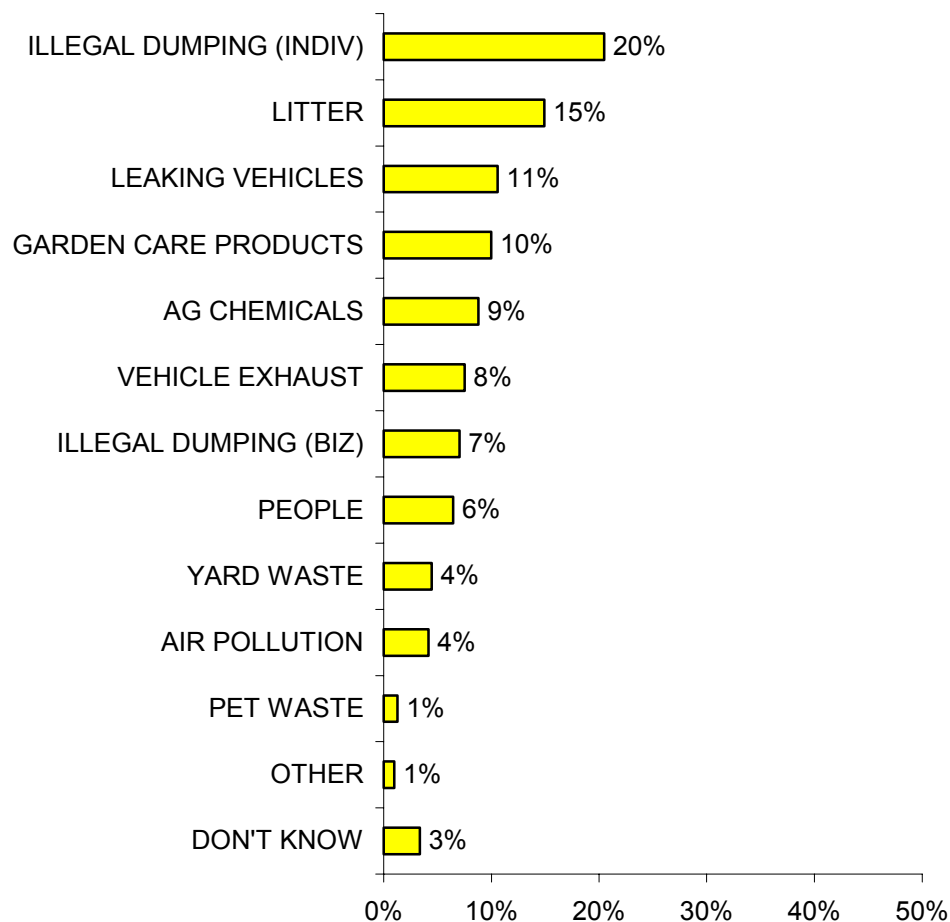
When asked specifically how the water that flows into storm drains can get polluted, forty-three percent (43%) of the respondents first mentioned illegal dumping by Individuals, and sixteen percent (16%) answered litter/trash in the streets (Figure 19). People who first responded litter/trash in the streets tended to be those with less than a high school education, or Spanish speakers. Caucasians tended to cite leaking vehicles (8%).

Figure 19. First Response to Causes of Stormwater Pollution (N=400)



As respondents were allowed to give multiple responses to the question, the other sources garnered more votes. Figure 20 shows the frequency of each response category for the total of 1011 comments received from this question. Illegal dumping by individuals remained in the lead with twenty percent (20%) of the responses, followed closely by litter (15%), leaking vehicles and garden care products (10%). This data suggests that the respondents understand that to some degree the well-meaning residents can contribute to stormwater pollution just as much as illegal dumpers, agriculture and industry.

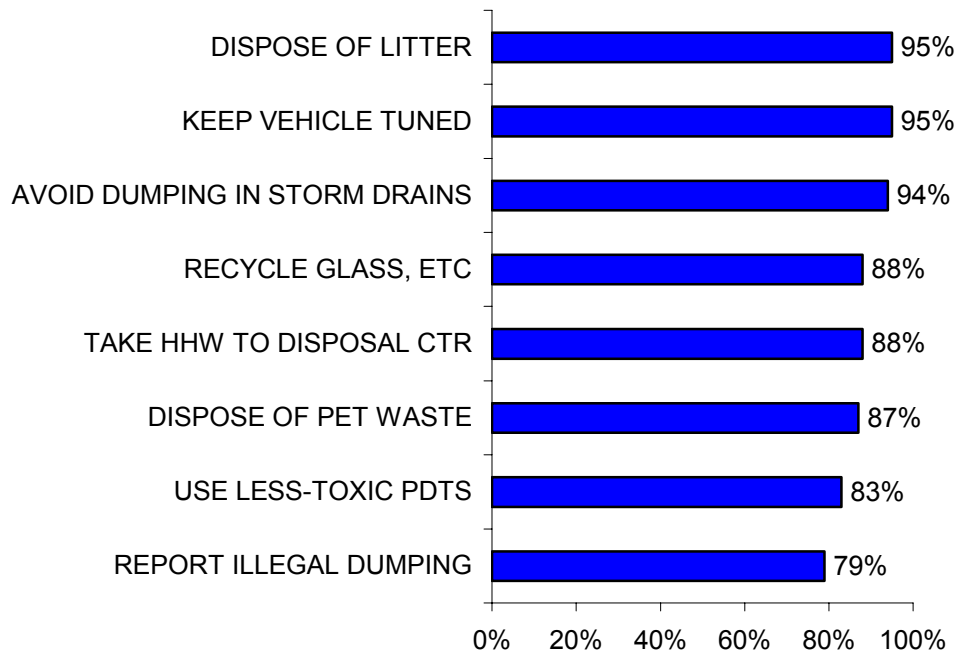
Figure 20. Total Responses to Causes of Stormwater Pollution (N=1011)



Willingness to Participate in Pollution Prevention Practices

In order to evaluate the community's readiness to engage in pollution prevention practices, respondents were asked to report their willingness to participate in a list of activities. Figure 21 summarizes the data for those respondents who indicated that they were "very willing" to employ such pollution prevention practices.

Figure 21. Those Very Willing to Help Reduce Stormwater Pollution (N=400)

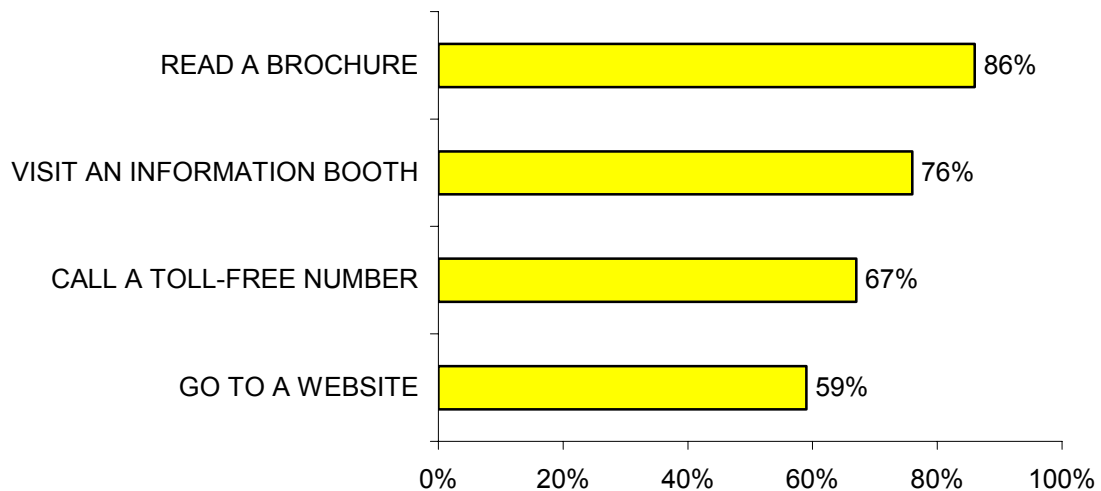


Willingness to Obtain Information About Pollution Prevention Practices

Respondents were then asked a series of questions aimed at identifying how they would like to get information about stormwater. It is apparent that there is a high level of willingness to help reduce stormwater pollution. It is significant that the majority of the respondents were willing to use all of the information sources. This indicates that residents are interested in receiving their information from several different sources. The fact that Stockton residents are willing to do their part provides this public outreach effort a great opportunity for changing behaviors.

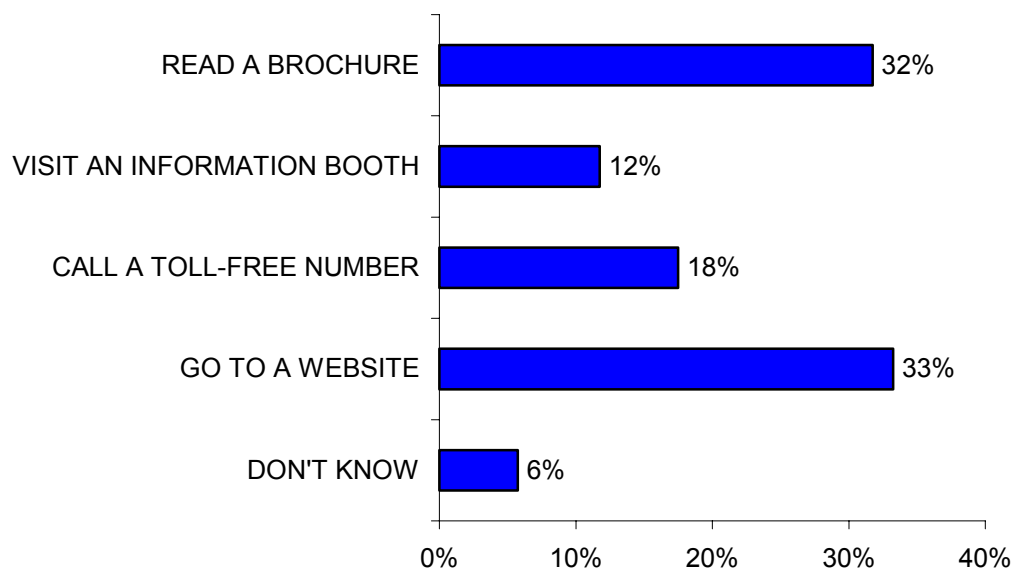
Cross tabulation analysis revealed that Spanish speakers, Latinos, and middle-aged respondents were most likely to call a toll-free number. On the other hand, English speaking respondents with more education and living in wealthy areas responded more positively to a website. This option, however, was not particularly appealing to older respondents.

Figure 22. Willingness to Use Information Sources (N=400)



Interestingly enough, when respondents were asked to identify the information source they would be most willing to use, 33 percent of those surveyed reported that they preferred to use a website. Reading a brochure closely followed the Internet at 32 percent of the respondents. A cross tabulation of the data revealed that a significant number of respondents between the ages of 18 and 24 were most willing to use a website, whereas those over the age of 55 were significantly less willing to use this source. People who earned less than \$25,000 annually were significantly more willing to read a brochure, and Spanish speakers reported a preference for calling a toll-free number.

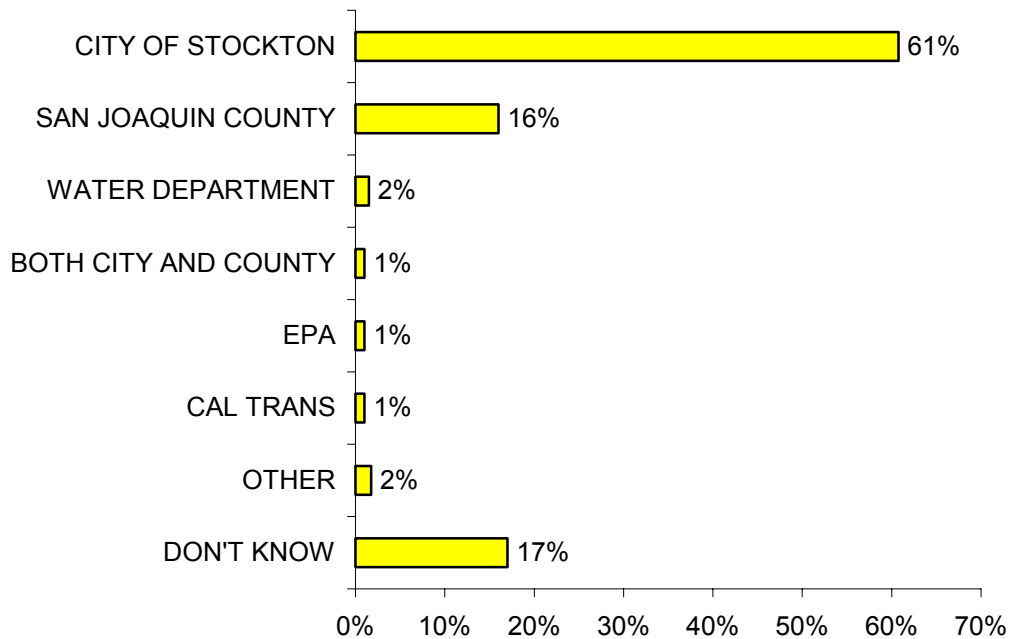
Figure 23. Preferred Information Source (N=400)



Awareness of City and County Stormwater Programs

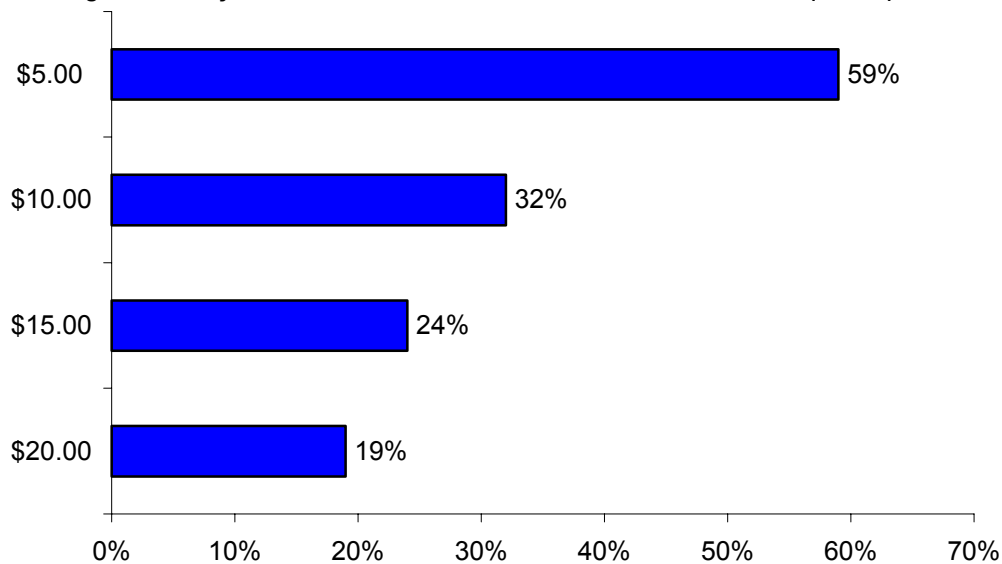
The majority of the respondents correctly reported that they believed the City of Stockton (61%) or San Joaquin County (16%) to be responsible for the operations and management of the stormwater system. Cross tabulation analysis revealed that those with less than a high school level education, Latinos and Spanish speakers responded more often that the County was responsible for the storm drain system. Males and those earning between \$35,000 and \$50,000 annually tended to identify the City.

Figure 24. Responsible Agency for Stormwater Management (N=400)



Respondents were next informed in a scripted narrative that the average Stockton household currently pays about \$25 annually in taxes for the operation of the storm drain system to prevent stormwater pollution. They were then asked to indicate their willingness to pay additional fees to support stormwater pollution prevention. Figure 25 identifies those respondents who indicated they would be willing to pay an additional \$5, \$10, \$15, or \$20 fee. Those with a graduate degree were significantly more willing to pay the additional \$20 increase.

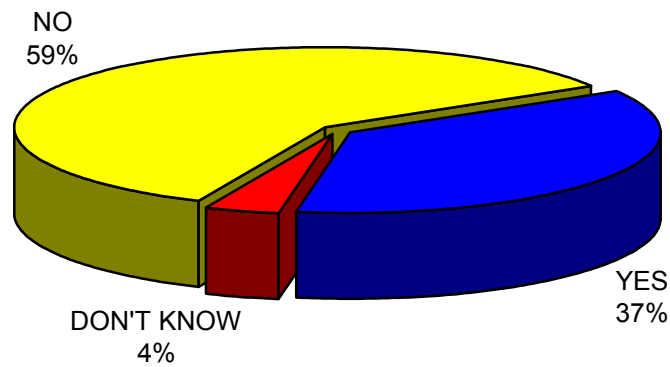
Figure 25. Willingness to Pay an Extra Fee for Stormwater Pollution Prevention (N=400)



Exposure to Stormwater Information

Thirty-seven percent (37%) of the respondents reported hearing or seeing television or radio spots, advertising or other information about stormwater pollution in the past year. The majority of the respondents (59%) indicated that they had not been exposed to any such information. These respondents tended to be those who live in zip code 95206.

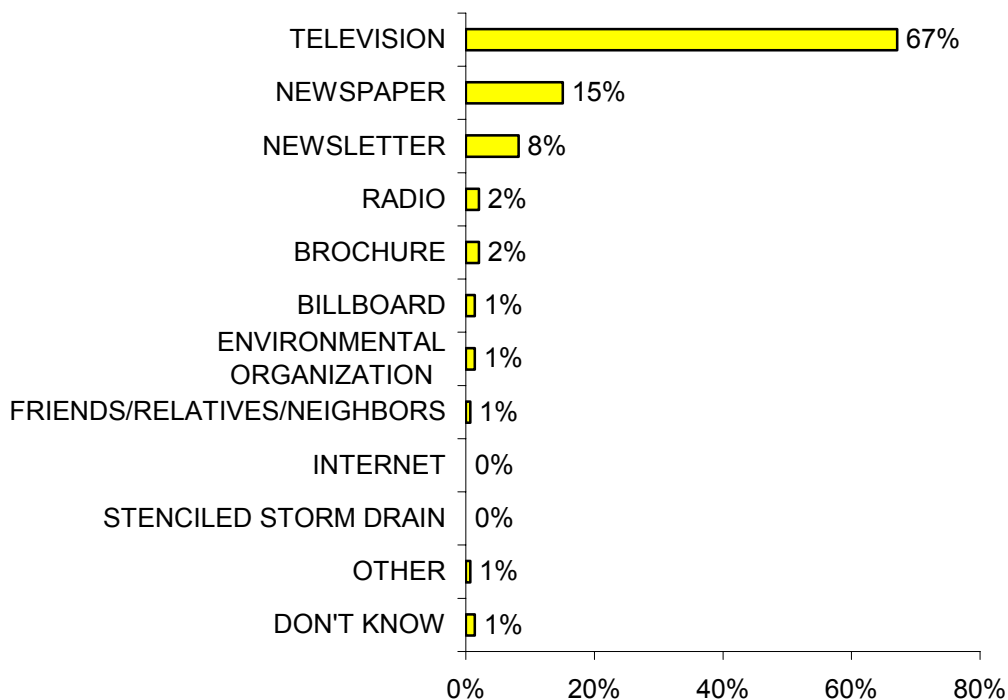
Figure 26. Awareness of News Reports or Advertising on Stormwater Issues (N=400)



The 146 respondents who reported having heard or seen stormwater pollution information were asked to report where they had been exposed to the information. The majority of the respondents (67%) reported having seen the information on television. Newspapers followed this response with only 15 percent. Those reporting television tended to earn less than \$25,000 annually, whereas those reporting newspaper tended to be homeowners.

The high number reporting TV is not surprising since television is known to have the highest recall rate of all media. It is possible, however, that this number may be slightly inflated due to some respondents remembering that they saw something but incorrectly assuming it was television. Nonetheless, it is clear that television achieves the greatest reach and should be a significant portion of the media mix for future campaigns.

Figure 27. Source of Stormwater Information (N=146)



All of the respondents were asked to provide their individual interpretation of the slogan “Only rain down the drain.” Their top-of-mind comments were subsequently sorted into 11 categories. The frequencies and percents of 423 comments are summarized by category in Figure 28. A complete presentation of the verbatim responses can be found in Appendix C. Sixty-seven percent (67%) of the comments touched upon key stormwater pollution prevention messages. Other comments were more general in nature.

Figure 28. Top-of-Mind Perceptions of “Only rain down the drain”

Comment Categories	Number of Responses	Percentage of Total Responses
• Avoid polluting storm drains because they directly affect the environment.	5	1%
• Rain water brings everything down the drain.	2	0%
• Don't put waste down the drain (oil, trash, pesticides, pet/human/yard waste).	153	36%
• Only clean water/rain should go down the drain.	126	30%
• Only water goes down the drain (they are there for the rain).	53	13%
• When it rains, it only goes down the drain.	2	0%
• Keep the drains clean.	6	1%
• Don't pollute our water.	3	1%
• Don't waste water, use it responsibly.	7	2%
• Don't know, confused	29	7%
• Miscellaneous	37	9%
Total (a particular respondent's set of comments may count in more than one category)	423	100%

APPENDIX A: DEMOGRAPHIC SUMMARY

Table 1. Race/Ethnicity

Caucasian	187	47%
Latino	111	28%
African American	43	11%
Asian	25	6%
Native American	7	2%
Mixed Race	14	4%
Other Miscellaneous	0	0%
Refused	13	3%

Table 2. Language of Interview

English	365	91%
Spanish	35	9%

Table 3. Gender

Male	174	44%
Female	226	56%

Table 4. Age

18 to 24 years	43	11%
25 to 34 years	78	19%
35 to 49 years	113	28%
50 to 54 years	44	11%
55 and over	109	27%
Refused	13	3%

Table 5. Home Ownership

Own	226	56%
Rent/Lease	161	40%
Refused	10	3%
Live with someone rent-free	3	1%

Table 6. Household Income

Less than \$25,000	97	24%
Between \$20,000 and \$34,999	50	13%
Between \$35,000 and \$49,999	75	19%
Between \$50,000 and \$74,999	51	13%
Between \$75,000 and over	50	13%
Refused	77	19%

Table 7. Level of Education Completed

Some High School or Less (Up to 11 th Grade)	51	13%
Completed High School (Grade 12)	107	27%
Some College	112	28%
College Students	39	10%
Some Graduate School	24	6%
Graduate Degree	47	12%
Refused	20	5%

Table 8. Zip Code Area of Residence

95202-95203	48	12%
95205-95215	49	12%
95204	48	12%
95206	48	12%
95207-95219	117	29%
95209-95210-95212	78	19%
Refused	12	3%

APPENDIX B: QUESTIONNAIRE & FREQUENCIES

Introduction:

Hello, I'm calling from AIS MARKET RESEARCH a California-based Market Research Company. We are not a telemarketer and are not trying to sell you anything. We're talking with adults over the age of 18 today concerning some important environmental issues our area will be facing in the future, and we'd like to include your opinions. It will only take a few minutes.

S1. Are you over the age of 18?

(If yes, continue.) If no, ask to speak to any other adult at home. Check quotas and continue.
Terminate and tally if no adult.

S2. And, are you the (male/female) head of your household?

(If yes, continue.) If no, ask to speak to any head of household at home now. Terminate and tally if no h/h.

Yes

400 respondents

S3. Approximately how long have you lived in the Stockton Urbanized Area?

Less than 6 months	1 (terminate)	0	0%
6 to 12 months	2 (continue)	13	3%
1 or more years	3 (continue)	387	97%

Questionnaire:

1. I'm going to read you a short list of environmental issues. After I have read all six, please tell me which one you think is the most serious. **(read each)**

Water pollution	1	155	39%
Air pollution	2	114	28%
Loss of wildlife habitat	3	18	5%
Urban growth	4	57	14%
Transportation	5	22	5%
Solid waste & recycling	6	34	9%

2. Are there any bodies of water near your home such as a lake, river, reservoir, or creek?

Yes	1 (continue)	264	66%
No	2 (skip to Q4)	132	33%
Don't know	3 (skip to Q4)	4	1%

3. Would you say that this body of water is: (**read each**)

Very clean	1	10	4%
Somewhat clean	2	48	18%
Somewhat dirty	3	79	30%
Very dirty	4	<u>127</u>	<u>48%</u>
		264	100%

4. In your opinion, what causes water pollution? (**open ended - do not read - record first response and total responses**)

	<u>First Response</u>		<u>Total Response</u>	
Industrial and manufacturing plants	77	19%	101	11%
Sewer/wastewater treatment plants	28	7%	66	7%
Retail businesses and stores	5	1%	30	3%
Agricultural chemicals and activities	33	8%	84	9%
People/everyone/residents	118	29%	190	20%
Improper disposal of trash in city streets	32	8%	96	10%
Improper disposal of used automotive fluids like oil and antifreeze	22	5%	86	9%
Use and improper disposal of lawn and garden chemicals like pesticides and fertilizers	14	4%	67	7%
Yard waste	5	1%	37	4%
Household cleaners used indoor	4	1%	26	3%
The operation of cars and trucks	6	1%	38	4%
Pet waste	2	<1%	21	2%
Storm water runoff from homes and businesses	11	3%	37	4%
Other (specify) _____	16	4%	29	3%
Refused/unable to answer	<u>27</u>	<u>7%</u>	<u>32</u>	<u>3%</u>
	400	100%	940	100%

5. In your opinion, what do you feel have been the main impacts of water pollution? (**open ended - do not read - record first response and total responses**)

	<u>First Response</u>		<u>Total Response</u>	
<u>Natural environment is affected</u> – causes harm to nature, the environment, ecology, wildlife, animals and marine life, etc.	128	32%	150	22%
<u>Human health problems</u> – causes health problems including sickness, cancer, poisoning, toxicity, affects the growth/health/future wellness of children.	109	27%	175	25%
<u>Agriculture</u> – impacts the production/growing of foods, crops, etc.	31	8%	82	12%
<u>Water supply</u> – reduces the water supply available for us to use	27	7%	83	12%
<u>Water quality</u> – affects the quality of our drinking water, water used for domestic purposes, makes our water unsafe	43	11%	107	15%
<u>Financial</u> – costs us more to treat the water for drinking or discharging (releasing, disposing) of it, causes increases in water rates, or affects the costs/success of doing business	15	4%	45	6%
Other (specify)	9	2%	13	2%
Refused/unable to answer	<u>38</u>	<u>9%</u>	<u>39</u>	<u>6%</u>

6. Who do you think is responsible for solving our water pollution problems? (**open ended - do not read - record first response and total responses**)

	400	100%	694	100%
	<u>First Response</u>		<u>Total Response</u>	
Industrial and manufacturing plants	27	7%	33	4%
Sewer/wastewater treatment plants	3	1%	20	3%
Retail businesses and stores	4	1%	17	2%
Agriculture	5	1%	19	3%
Residents	42	10%	66	9%
City government	71	18%	105	14%
County government	12	3%	74	10%
State government	48	12%	115	15%
Federal government / EPA	27	7%	80	11%
Everyone	126	31%	178	24%
Other (specify)	3	1%	9	1%
Refused/unable to answer	30	8%	31	4%
Water district	2	<1%	4	1%
	<u>400</u>	<u>100%</u>	<u>751</u>	<u>100%</u>

7. Now I'm going to read you a list of things that may be involved in water pollution in our area and ask you to rate how much you think they contribute to water pollution: (**read each**)

[INSERT CONTRIBUTOR] Would you say it contributes to water pollution a lot, some, a little, or not at all? (FOR NO OPINION, MARK AS SUCH)

	<u>A Lot</u>		<u>Some</u>		<u>A Little</u>		<u>Not At All</u>	
A. Agriculture	160	40%	123	31%	84	21%	33	8%
B. Industry	258	64%	86	22%	42	10%	14	4%
C. Business	165	41%	132	33%	70	17%	33	8%
D. Transportation	144	36%	125	31%	92	23%	39	10%
E. Residents	151	38%	135	34%	90	22%	24	6%

8. In the past year or so, have you or someone in your household used pesticides or weed killers outside?

Yes	1	(continue)	156	39%
No	2	(skip to Q10)	244	61%

9. (If yes) How do you normally get rid of, or dispose of, leftover pesticides or weed killers? (**open ended - do not read**)

Use it all up, nothing left	60	38%
Bury it in the ground	0	0%
Put it in the trash/landfill	32	21%
Pour it in the gutter/street (storm) drain	1	<1%
Pour it down a sewer/household drain	0	0%
Pour it on the dirt/ground	2	1%
Store it for future use	16	10%
Take it to a household hazardous waste collection event/center	36	23%
Other (specify)	1	<1%
Refused/unable to answer	8	5%

10. Do have a pet at home that you or someone in your household likes to take for walks?
- | | | | | |
|-----|---|---------------|-----|-----|
| Yes | 1 | (continue) | 145 | 36% |
| No | 2 | (skip to Q12) | 255 | 64% |
11. (If yes) How do you normally get rid of, or dispose of, pet waste while on a walk? **(open ended - do not read)**
- | | | | |
|--------------------------------|---|-----|-----|
| Leave it there | 1 | 16 | 11% |
| Bag it and put it in the trash | 2 | 101 | 70% |
| Bury it in the ground | 3 | 7 | 5% |
| Other (specify) _____ | 4 | 3 | 2% |
| Refused/unable to answer | 5 | 18 | 12% |
12. Do you take care of your own yard?
- | | | | | |
|-----|---|---------------|-----|-----|
| Yes | 1 | (skip to Q14) | 249 | 62% |
| No | 2 | (continue) | 151 | 38% |
13. (If no) Do you use a yard care service?
- | | | | | |
|-----|---|---------------|----|-----|
| Yes | 1 | (continue) | 77 | 51% |
| No | 2 | (skip to Q15) | 74 | 49% |
14. (If yes to Q12/Q13) How do you dispose of your yard waste, such as leaves and grass clippings? **(open ended - do not read)**
- | | | |
|---|----|-----|
| Hose to street or gutter | 2 | 1% |
| Place it in the trash | 37 | 11% |
| Take it to the dump/landfill | 45 | 14% |
| Bag it and put it on the street near the curb | 87 | 27% |
| Put it in piles on the street near the curb | 76 | 23% |
| Put it in a compost pile | 24 | 7% |
| Other (specify) _____ | 2 | 1% |
| Refused/unable to answer | 35 | 11% |
| Gardener takes it | 18 | 6% |
15. Have you or anyone in your household changed the oil in your car, or anyone else's car, while at home in the last year?
- | | | | | |
|-----|---|---------------|-----|-----|
| Yes | 1 | (continue) | 102 | 25% |
| No | 2 | (skip to Q17) | 298 | 75% |
16. How do you normally get rid of, or dispose of, leftover oil? **(open ended - do not read)**
- | | | |
|--|----|-----|
| Put it in the trash/landfill | 9 | 9% |
| Pour it in the gutter/street (storm) drain | 1 | 1% |
| Pour it down a sewer/household drain | 2 | 2% |
| Pour it on the dirt/ground | 2 | 2% |
| Bury it in the ground | 0 | 0% |
| Take it to a household hazardous waste collection event/center | 76 | 75% |
| Curbside collection | 9 | 9% |
| Other (specify) _____ | 2 | 2% |
| Refused/unable to answer | 1 | 1% |

17.	Do you have storm drains in your neighborhood?			
	Yes	1	333	83%
	No	2	44	11%
	Don't know	3	23	6%
18.	How familiar are you with the storm drain system in your area? Would you say you are: (read each)			
	Very familiar	1	101	25%
	Somewhat familiar	2	119	30%
	Not very familiar	3	73	18%
	Not at all familiar	4	107	27%
19.	During the rainy season, how well would you say the storm drain system in our community works? Would you say it: (read each)			
	Works very well		136	34%
	Works somewhat well		153	38%
	Doesn't work well but is being improved		42	10%
	Doesn't work well at all		45	11%
	Refused/Unable to answer		24	6%
20.	As you may know, rainwater flows through streets, along gutters and into underground storm drain pipelines. As far as you know, where does the water go that flows into the storm drain? (open ended - do not read)			
	To the Delta		115	29%
	To a river		113	28%
	To a creek		14	4%
	To a canal		27	7%
	To detention/retention basins		27	7%
	To groundwater		5	1%
	To a sewage plant, wastewater treatment plant		32	8%
	To some sort of place where it is stored		16	4%
	Other (specify) _____		3	1%
	Refused/Unable to answer		62	16%
	Ocean		4	1%
			400	100%

21. Now I am going to read to you two statements and ask you to tell me if you agree or disagree with each. Here's the first statement:

A. ***Our community's storm drain and sewer systems share the same underground pipe system.***

Would you say you agree or disagree with that statement?

Agree	159	40%
Disagree	156	39%
Don't know	85	21%

- B. Here's the next statement: ***Water and other substances that flow through the storm drains go to a treatment plant to be processed and filtered to remove pollutants.*** Would you say you agree or disagree with that statement?

Agree	196	49%
Disagree	151	38%
Don't know	53	13%

22. How would you say that the water that flows into storm drains generally gets polluted? (open ended - do not read - record first response and total responses)

	<u>First Response</u>		<u>Total Response</u>	
Illegal dumping by individuals	173	43%	207	20%
Illegal dumping by business, industry or shipping	14	4%	71	7%
Agricultural chemicals and activities	17	4%	89	9%
Litter/trash in the streets	62	16%	151	15%
Home garden care products/pesticides/fertilizers	22	5%	101	10%
Yard waste	8	2%	65	6%
Pet waste	3	1%	45	4%
Vehicle exhaust	16	4%	76	8%
Air pollution/acid rain	4	1%	42	4%
Leaking vehicles	32	8%	107	11%
Other (specify) _____	4	1%	7	1%
Refused/Unable to answer	32	8%	34	3%
People	11	3%	13	1%
Runoff	2	<1%	3	<1%
	<u>400</u>	<u>100%</u>	<u>1011</u>	<u>100%</u>

23. I am going to read a list of some possible ways to reduce stormwater pollution. Please tell me how willing you would be to do the following. **(read each)**

[INSERT BEHAVIOR] Would you be very willing, somewhat willing, not very willing, or not at all willing? (FOR NO OPINION, MARK AS SUCH)

	<u>VW</u>	<u>SMW</u>	<u>NVW</u>	<u>NTAL</u>
A. Avoid dumping pollutants in a storm drain	94%	4%	1%	1%
B. Report any illegal dumping you witness	79	12	4	5
C. Keep your vehicle tuned and leak free	95	4	1	0
D. Take your household hazardous waste to a disposal center	88	9	1	2
E. Use less-toxic methods to control pests and weeds	83	10	2	5
F. Recycle glass, plastic, metal and newspaper	88	7	3	1
G. Properly dispose of litter	95	4	0	1
H. Properly dispose of pet waste	87	6	1	6

24. If you wanted more information on how to help reduce pollution, would you be willing to [INSERT INFO SOURCE]: **(read each)**

	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>
A. Call an "800" number	67%	30%	3%
B. Go to a website	59%	37%	4%
C. Visit an informational booth at a community event	75%	21%	4%
D. Read a brochure	86%	14%	1%

25. Which would you be most willing to do? **(read each)**

Call an "800" number	70	17%
Go to a website	133	33%
Visit an informational booth at a community event	47	12%
Read a brochure	127	32%
Refused/Unable to answer	<u>23</u>	<u>6%</u>
	400	100%

26. As far as you know, which agency is responsible for the operations and management of our storm drain system? **(open ended - do not read)**

City of Stockton	243	61%
San Joaquin County	64	16%
Other (specify)_____	7	2%
Refused/Unable to answer	68	17%
Both City and County	4	1%
CalTrans	4	1%
EPA	4	1%
Water Dept	6	1%

27. As you may know, the average household in Stockton pays about \$25 per year in taxes for the operation of the storm drain system and programs to prevent stormwater pollution. Would you be willing to pay an additional [INSERT AMOUNT] ? **(read each)**

	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>
A. \$5.00 ANNUALLY	59%	33%	8%
B. \$10.00 ANNUALLY	32	57	11
C. \$15.00 ANNUALLY	24	65	10
D. \$20.00 ANNUALLY	19%	71%	11%

28. In the past year, have you heard or seen any reports, television or radio spots, advertising or other information about stormwater pollution and what's being done to protect the region's water bodies?

Yes	1 (continue)	146	37%
No	2 (skip to Q30)	239	60%
Don't know	3 (skip to Q30)	15	4%

29. Where did you hear or see this information? **(open ended - do not read)**

Television	98	67%
Radio	3	2%
Newspaper	22	15%
Magazines	0	0%
Billboards	2	1%
Brochure	3	2%
Newsletter	12	8%
Internet	0	0%
Stenciled storm drains	0	0%
Environmental organizations	2	1%
Friends/relatives/neighbors	1	1%
Children	0	0%
Community event	0	0%
Other (specify) _____	1	1%
Refused	2	1%

30. What do you think the following slogan means: "Only rain down the drain." **(Probe for complete response and record verbatim.)**

Demographics:

In order to classify your responses, I need to ask a few questions about you. These are the last few questions I have.

D1. What is your zip code? _____

D2. Do you own or rent your current home?

Own	226	59%
Rent/lease	161	40%
Other (specify) _____	0	0%
Refused	10	3%
Live with someone rent free	3	1%

D3. What is your current age? **(do not read)**

18 – 24	43	11%
25 – 34	78	19%
35 – 49	113	28%
50 – 54	44	11%
55+	109	27%
Refused	13	3%

D4. What is the last grade in school you completed? **(do not read)**

Some high school or less (up to grade 11)	51	13%
Completed high school (grade 12)	107	27%
Some college	112	28%
College graduate	39	10%
Some graduate school	24	6%
Graduate degree	47	12%
Refused	20	5%

D5. What is your ethnic background? **(do not read)**

Caucasian/White	187	47%
Latino/Hispanic	111	28%
African-American/Black	43	11%
Asian	25	6%
Native American/American Indian	7	2%
Mixed Race	14	4%
Other (specify) _____	0	0%
Refused	13	3%

D6. And finally, which of the following categories best describes your total household income last year, before taxes. Please stop me when I come to your category. **(read each)**

Less than \$25,000	97	24%
\$25,000 – 34,999	50	13%
\$35,000 – 49,999	75	19%
\$50,000 – 74,999	51	13%
\$75,000 and over	50	13%
Refused	77	19%

That's all the questions I have. On behalf of AIS Market Research, I'd like to thank you for your participation. Your opinions do have an impact on local issues and participating in market research is an important way for you to contribute.

Record gender: Male

174 44%

Female

226 56%

Language the interview was conducted in:

English

365 91%

Spanish

35 9%

APPENDIX C: VERBATIM RESPONSES FOR Q30

30. What do you think the following slogan means: “Only rain down the drain.” (Probe for complete response and record verbatim.)

- ♦ No pollution in the drain, no pouring things down the drain, prevent water pollution.
- ♦ I have no idea of what that means.
- ♦ I'm not sure what that means.
- ♦ Not put oil down the drain system. Keep it clean. No, just to keep it clean.
- ♦ That it, goes down the drain I guess that's all.
- ♦ Means after it's gone it's too late you can't do anything about it.
- ♦ They don't want you putting anything into the gutter but rainwater.
- ♦ To keep trash out of the gutter, oil, pesticides, you know trash.
- ♦ Just rain water going down in to drain not trash and oil.
- ♦ Well, only rain. No carwash water or pesticides.
- ♦ I don't know. I've never heard that slogan before.
- ♦ Only rain, no waste, no garbage, nothing but rain goes into the drain.
- ♦ I think it's silly as h**l!!
- ♦ Nothing. Just a way to catch the public's eye.
- ♦ My money down the drain describes exactly what that slogan means to me.
- ♦ No waste material other than water in the system.
- ♦ Water acts as a cleansing agent in that respect.
- ♦ Should not be anything else thrown down the drain.
- ♦ Sound pretty good. If we could only get the whole human race to do it.
- ♦ All that needs to be going down the drain is water.
- ♦ Should only be water down the drain.
- ♦ Just what it's saying.
- ♦ It is very true, only water down the drain.
- ♦ Because they are there only for the rain.
- ♦ I have no idea.
- ♦ Just water in the drains.
- ♦ That's all that should go down the drain.
- ♦ Don't put anything else down there.

- ◆ Only rain is supposed to go down there.
- ◆ That only rain should go down the storm drains.
- ◆ All drains should have only rain going down them.
- ◆ Stop pouring other things into the drain.
- ◆ I don't know.
- ◆ No waste, no dumping, just run off.
- ◆ Only just regular water down the drain. No oil, chemical, or etc.
- ◆ No dumping, just let the natural water go down the drain.
- ◆ Shouldn't put anything down the drain. No chemical, no animal waste. Just pure water.
- ◆ Only rainwater can go down the drain.
- ◆ There should only be pure water down the drain.
- ◆ Don't be dumping nothing that you shouldn't.
- ◆ Don't put any product down the drain that does not belong there.
- ◆ It's good that it sending the message.
- ◆ Exactly that. Only rain gets down the drain.
- ◆ Keep your gasoline, yard waste and other junk away from the drain.
- ◆ Only rain goes down the drain, duh.
- ◆ When it rains it only goes down the drain.
- ◆ Drains only for water.
- ◆ Only thing goes down the drain is rain.
- ◆ Just what it says.
- ◆ Don't put antifreeze or oils down the drains
- ◆ When it rains it only goes down the drain.
- ◆ Don't throw garbage down the drain.
- ◆ Don't discard used oil down the drain.
- ◆ Just water going down the drain that's all.
- ◆ Only rain should go down the drain.
- ◆ Only water down the drain.
- ◆ Don't put any pollutions because water goes to our environment.
- ◆ It's simple only water.
- ◆ Clean sewage.

- ♦ No dirty junk down the drain.
- ♦ It means we are not to put pesticides, dog waste; it's for rainwater nothing else.
- ♦ To make sure that only rain goes down the drain.
- ♦ Only rain in the drain. Don't put paint thinner, gas, and extra things down the drain.
- ♦ Not to put any personal waste in the water storm drain
- ♦ They only want rain to go down the storm drain, or don't dispose anything down the drain.
- ♦ That means that only rainwater is supposed to go down the drains.
- ♦ I don't know.
- ♦ That's all that should be put down the drains.
- ♦ That nothing else goes down the drain.
- ♦ Only rainwater goes down the drain.
- ♦ Don't put any c**p down the drain like car oil, car wash water or dog poop.
- ♦ Nothing else should go in the drain except rainwater.
- ♦ It means exactly what it says; only rain down the drain nothing else.
- ♦ When you get many vehicles on the road you can't support that slogan.
- ♦ Nothing but rain should go down the drain.
- ♦ Only rainwater should go in the drain.
- ♦ Keep your storm drains clean.
- ♦ Only uncontaminated water should go down the drain.
- ♦ No chemicals being let or put in the storm drains.
- ♦ No oils or toxins put down the drain.
- ♦ Don't pollute our water.
- ♦ Don't pollute our water.
- ♦ No oils down the drain.
- ♦ Don't pollute our water.
- ♦ Water should be all that goes down the drain.
- ♦ I don't know. Do you know?
- ♦ I don't know.
- ♦ I don't know.
- ♦ Don't pour anything hazardous down the drain.
- ♦ Turn off your sprinkler when they don't need to be used.

- ◆ Only rain should be going down the drain.
- ◆ Only rain down the drain.
- ◆ I don't know I've never heard that before.
- ◆ Only rain to go down the drain no other hazardous items.
- ◆ That no garbage should go down our drain.
- ◆ That rain is the only thing that should go down our drain.
- ◆ That only rainwater should be the only thing going down the storm drains.
- ◆ I don't know cause we don't have any.
- ◆ That if we could keep only the rainwater going down the drain, things would be a lot nicer.
- ◆ Only the rain goes down the drain.
- ◆ That's exactly what that means.
- ◆ Rain is all that should go down the drain.
- ◆ Only the rain down the drain is exactly what it means.
- ◆ Only clean water should go down the drain.
- ◆ Only clean water should go down the drain.
- ◆ Only clean water goes down the drain.
- ◆ Nothing else should go down the drain but water.
- ◆ Only water should go down the drain so it could protect our environment.
- ◆ Just clean water should go down the drain, not possible though too many people litter.
- ◆ Only water should go down the drain and nothing else.
- ◆ That no other types of substances should be dumped in storm drains only rain should flow.
- ◆ Nothing but rain goes down the drain.
- ◆ Don't waste water down the sewer.
- ◆ Instead it should be rain going down the drain, not nothing else.
- ◆ No sewer or anything down the drain only rainwater.
- ◆ Don't put your c**p in the water such as people c**p, dog c**p, etc. in the water.
- ◆ It mean just rain down the drain, no hazardous chemicals down the drain.
- ◆ If it's coming from the sky that's the only thing should be going down the drain.
- ◆ Don't put anything far as polluting the water.
- ◆ It means separate the pipelines.
- ◆ Only clean water should go down the drains.

- ♦ Just clean water should go down the drains.
- ♦ That no oils from cars or litter should go down the drain, just water, that's all.
- ♦ Just water needs to go down the drain.
- ♦ I really don't know.
- ♦ It means don't dump anything else down the drain, just water.
- ♦ It means exactly that nothing else.
- ♦ It doesn't mean anything to me.
- ♦ It means only water down the drain and nothing else, that's all.
- ♦ Just water.
- ♦ Just fine.
- ♦ The slogan is very good.
- ♦ Because no chemicals should be put in the drain.
- ♦ Good, It gets right to the point.
- ♦ Don't know.
- ♦ Don't dump anything in the streets that are not supposed to go down the drains.
- ♦ Only pure rainwater is supposed to go down the drain.
- ♦ It sounds like no pollution going down the drain, only water should get put down there.
- ♦ It means exactly what it says only rain should go down there.
- ♦ No oils or pesticides. Don't over water your lawns. If your car is leaking get it fixed.
- ♦ No contaminants down the drain, just water.
- ♦ For people not to contaminate with oils and trash waste.
- ♦ To take care of our responsibilities and not put trash and oils down the drain.
- ♦ Just not pollute our community and maintain cleanness.
- ♦ Well when it rains that's all they want down there, not chemicals.
- ♦ That's all we want down there not trash and stuff.
- ♦ It's supposed to be that way, but everyone and all these businesses are not responsible even the floor gets dirty.
- ♦ Don't pour any other stuff down there.
- ♦ Yep, that's a good slogan because that's the only thing that belongs down there.
- ♦ It means no yucky stuff down the drain, people!
- ♦ It means only water down the drain, nothing else.

- ♦ Nothing.
- ♦ Don't put anything down the drains except water.
- ♦ It means just what it says only water down our drains and nothing else.
- ♦ Only rain goes down the drain.
- ♦ Only water needs to be going down.
- ♦ You don't put any polluting things down the drain.
- ♦ Only rainwater should be going down the drain.
- ♦ That nothing but rain should go in the drain.
- ♦ I don't know what else.
- ♦ That only rain and no oil or pesticides.
- ♦ The only thing that goes in the drain should be rain and nothing else.
- ♦ Man should not put anything but rain in the drain system.
- ♦ Only rain should go to the drain.
- ♦ Nothing else should be put down the drain system.
- ♦ Basically that nothing but rain should go down the drain.
- ♦ Nothing but water should go in the drain and no trash.
- ♦ Only rain, not oil or waste.
- ♦ Don't put anything down the drain.
- ♦ No garbage or pollutions.
- ♦ No oil down the drain.
- ♦ Nothing else but rain in the drain.
- ♦ It is cool out there.
- ♦ Only rain down the drain.
- ♦ They don't want trash down there so they're asking for rain only, not trash.
- ♦ They don't want anything else there that pollutes the city.
- ♦ Don't throw trash down there, just water that falls from above.
- ♦ Don't dump any pollution down the drains only rainwater belongs there.
- ♦ Nothing but water should go down the drains.
- ♦ Don't dump anything toxic in the drains watch to be sure that only water goes down.
- ♦ It means only clean water should go into storm drains.
- ♦ I don't know.

- ◆ Don't dump things down the drain.
- ◆ Only rain runoff should go into the storm drain.
- ◆ That only rain should go down the storm drains.
- ◆ Water going down the drain.
- ◆ Only natural resources down the drain, like water and only that, no extras.
- ◆ Don't dump anything down the drain.
- ◆ Only rain down the drain, not pollutants.
- ◆ Only rain down the drain nothing else.
- ◆ Means not to put anything down the drain, no pollutants or trash.
- ◆ The natural pouring water should be put down the drain and that's all, no trash.
- ◆ Drains are only for water.
- ◆ Don't pollute, only the water goes down the drain.
- ◆ Only rain should go down the drain and nothing else.
- ◆ That rainwater goes in the drains.
- ◆ That we should not throw trash in the drain.
- ◆ That you should not wash cars outside because it contaminates the waters.
- ◆ That water should not be wasted.
- ◆ That we should use water responsibly.
- ◆ That it would not be good to throw anything down there.
- ◆ That means that when the rain falls, it takes everything in its way so we should be careful what we use and what we put in the streets.
- ◆ That you should watch what you throw away because the rain comes and washes everything and then we have to use that water again.
- ◆ That no oil, trash or gasoline to go in the drain.
- ◆ Only clean water should go in the drain because it goes back into nature.
- ◆ That only rainwater should go down the drain.
- ◆ That we should keep the streets clean because it contaminates the rain when it goes in the drains.
- ◆ That we should keep the drains clean.
- ◆ It's cute but immature, no impact on me personally. Doesn't mean anything to me.
- ◆ We have a lot of water.
- ◆ Let rain only flow through the drains. It would help prevent pollution.
- ◆ Don't pour anything that don't belong down the drain.

- ◆ Water goes into the drain. It is a slogan to help with advertisement. I guess
- ◆ Rain going down the drain.
- ◆ Only rain should go down the drain. Isn't that obvious to you. Why did you ask such a question?
- ◆ Don't pour anything else down the drain.
- ◆ Rain only in the drain.
- ◆ Only water runoff after the rain should go in the drain.
- ◆ When watering the lawn don't over water it.
- ◆ That not to put trash in the storm drains.
- ◆ Only pure unpolluted water should be allowed down the storm drain.
- ◆ Start keeping our gutters clean, so when it backs up, it's not full of pesticides.
- ◆ They're not prepared to save the water. They need concrete vaults. Back in 1986, they should have built them.
- ◆ That we shouldn't dump anything else no bucket of water no nothing.
- ◆ Don't put anything in the drain such as trash. Drains are only for water.
- ◆ Should not dump nothing in drains, only rain or water in the drain.
- ◆ To keep clean, stop littering and throwing things in the drain.
- ◆ No oil or pesticides in the drain. Just let water flow in the drain.
- ◆ Not to pollute our drains, only let water down the drains.
- ◆ It means don't pour anything else but what you're supposed to down the drain.
- ◆ Don't pollute. Keep the water clean.
- ◆ It means don't put anything that belong down the drain.
- ◆ No leaf, no garbage, only rain.
- ◆ Don't put anything down the drain other than rain water.
- ◆ Keep only rain in the drain.
- ◆ That's it. The only thing that should go down the drain is water, nothing else.
- ◆ They shouldn't put anything else down the drain besides rainwater.
- ◆ Don't put other things down the storm drain.
- ◆ They don't want pollution in their drains, only rain.
- ◆ Exactly what it says, only rain down the drain.
- ◆ It rains in the drain.
- ◆ To keep pollutants out of the storm drains and not pour anything like car oils and stuff in it.

- ◆ Hopefully for only the water that comes out the sky to go in there.
- ◆ Not sure.
- ◆ Don't put anything down the drain that's not water.
- ◆ It means only rain down the drain nothing else.
- ◆ I don't know.
- ◆ Don't dump anything down the drain.
- ◆ Only clean water should be going down the drains.
- ◆ It means no hazardous materials should be going down the drain systems.
- ◆ Don't dump into the drain.
- ◆ Don't throw waste into the drains.
- ◆ No illegal dumping.
- ◆ Only clean water needs to be going down the drain.
- ◆ Don't dump anything into the drains.
- ◆ Only rain water should go down the drain, not pollutants.
- ◆ I don't have the foggiest clue.
- ◆ Not to put anything other than water down the storm drain.
- ◆ It means we don't want anything other than rainwater to go down the drain.
- ◆ Basically don't dump anything else down the drain.
- ◆ That's all that need to or should be put down the drain.
- ◆ Only water should go down the drain.
- ◆ Rain is all that should go down the drain, nothing else.
- ◆ Nothing illegal should be put down the drain such as chemicals or pollutants.
- ◆ The rain should be the only thing put down the drain.
- ◆ Not to put/dump anything down the drain.
- ◆ Means to watch what's going down the drain, not using chemicals or pesticides.
- ◆ Don't put road oil, motor oil in the storm drain.
- ◆ Only rain down the drain. Only pure water.
- ◆ Don't put anything else down the drain only water.
- ◆ Don't put harmful stuff down the drain, no dumping, gasoline, harmful liquids to the water.
- ◆ Only rainwater should be going down the drain.
- ◆ I don't really know what it means. It's there for water to go down it.

- ♦ Exactly what it says.
- ♦ Exactly what the slogan says. Rain is the only thing that should be going down the drain.
- ♦ Don't dump anything down the drains.
- ♦ The only stuff that's safe to go down the drain is rain.
- ♦ It's kind of self explanatory. Only put water in the drain.
- ♦ Only rain goes into the drain, nothing else.
- ♦ That's a good one. That means water only down the storm drains, no pollutants.
- ♦ I have no idea; don't put anything else down there.
- ♦ Good thing, care and not pollute the drains.
- ♦ Just let the rain down the gutter, don't throw your beer bottles and garbage in the streets.
- ♦ I don't know how to express that, I just don't know.
- ♦ It just means don't put anything else down there. It should only be rain that goes down the drain and no oil and stuff off your lawn should be thrown down there.
- ♦ It tells me not to dump stuff down the drain like used oils, antifreeze and whatever to take them to the recycling place and not to dump them down the drains
- ♦ Not to dump stuff down the drains, it's only for rain.
- ♦ Nothing else but rain down the drain.
- ♦ No oil or trash, only water down the drain
- ♦ You don't put anything down the drain, only water.
- ♦ Nothing should go down the sewer except water.
- ♦ Only water down the drain.
- ♦ Let the rain fall down the drain.
- ♦ Basically try no to get pollutants into the surface runoffs because the water will get affected.
- ♦ Nothing should go down the drain.
- ♦ Doesn't sound very smart. Very ignorant it seems like no one is using their education to make that slogan. It doesn't sound good.
- ♦ Only rain down the drain, the slogan says it like it is.
- ♦ I'm not sure; I don't think I've ever heard that before.
- ♦ I don't know. I've never heard that slogan before.
- ♦ Don't pollute the drains and don't put anything down there except rain.
- ♦ Don't put anything else down the drain, put pour or throw whatever down the drain.
- ♦ Stop dropping oil and chemicals down the drain.

- ♦ Only rainwater should go down the drain, the slogan is good.
- ♦ Natural rain from the earth should only go down the drain.
- ♦ That's all you want down the drain.
- ♦ Means only the rain down the drain. Don't put anything down there like pesticides.
- ♦ When you have facilities that drain, you shouldn't put oils down the drain, the slogan says it all.
- ♦ Don't dump anything down the drain except the rain.
- ♦ Shouldn't have any pollutants down the drain.
- ♦ Certain water down the drain I don't know.
- ♦ It means no oil, tampons, or peeing down the drain.
- ♦ Just water down the drain and nothing more.
- ♦ Don't put anything except the rainwater down the drain.
- ♦ Not to put anything down the drain. Don't use it as a dump system.
- ♦ Only rainwater goes down the drain.
- ♦ Don't dump any motor oil or pollutants down the drain.
- ♦ Don't pollute the drains by putting anything other than water down them.
- ♦ That the only thing down the drain should be water and nothing else.
- ♦ I think it means only rain down the drain. No pollutants like dog poo and stuff.
- ♦ I don't know. I don't have any idea.
- ♦ Only rainwater should go down the drain. Only rain not any pollutants.
- ♦ Don't dump waste or pollutions down the drain.
- ♦ No trash only water down the storm drains.
- ♦ Only the rain goes down the drain.
- ♦ It means only the rain.
- ♦ That it's a clean city.
- ♦ Only clean water goes down the drain.
- ♦ It means to take care of our storm drains.
- ♦ That everything goes down the drain.
- ♦ It means just that, only the rain down the drain.
- ♦ But I guess they just want water going into the drain and nothing else, I don't know.
- ♦ They don't want any pollutants in the storm drain.
- ♦ Only the clean water I would assume that's what they mean.

- ◆ Don't put oils and trash in the water drains.
- ◆ Don't put oils and trash in the storm drains.
- ◆ Only rain should go in the drain exactly what it says.
- ◆ It means the impossible. Rain comes impure and hits my roof and takes bugs and other things to the gutter with it.
- ◆ All we need to put down the drain is pure water. There should be no oil or pesticides down the drain.
- ◆ Don't put anything down the drain other than pure water.
- ◆ It means that only rainwater should go down the drain.
- ◆ Keep it clean, keep the water that goes into the storm drain clear of pollution.
- ◆ That's all that goes in the drain is water, no oil, no trash, nothing but water.
- ◆ I don't know.
- ◆ Not to put any pollutants in the gutters.
- ◆ It means don't throw oil or other hazardous waste down the storm drains.
- ◆ Not to pour any waste down the drains.
- ◆ Keep it clear from people dumping their waste, and oils.
- ◆ Keep drains clean.
- ◆ It is unrealistic for people not to throw trash in the drains.
- ◆ Only water should go down the drains.
- ◆ It's not ok to put trash in the drain.
- ◆ Good because why would you want to put anything other than water down the drain.
- ◆ People need to be educated about how to keep things clean.
- ◆ Rainwater is the only thing that should go down the drain.
- ◆ No dumping any fluids into the drain.
- ◆ Nothing should go down the drain but water.
- ◆ Well you can't put garbage down there that's for sure.
- ◆ That only water should go down the drain.
- ◆ It means only rain down the drain.
- ◆ That nothing but water should go down the storm drain.
- ◆ It means that no contaminates or litter should go in the drain, only storm water.
- ◆ Nothing else but water should go down the drain.
- ◆ Only rain goes down there.

- ♦ That's all they want going down the drain, including no trash.
- ♦ Keep everything out of the drain
- ♦ It's all full of s**t.
- ♦ No bad water in the sewage.
- ♦ Not to pollute water going down the drain.
- ♦ Well it makes sense. You don't want any pollutants down the drain.
- ♦ I don't know.
- ♦ It means just let rain go down the drain.
- ♦ Just rainwater should go down the storm drains.
- ♦ Don't put nothing but rainwater down the drain.
- ♦ Pure water, no pesticides or oils down the drain, water only.
- ♦ That's all that should be put down the drain is rain water.
- ♦ Don't put anything else but natural water down the drains.
- ♦ I don't know (followed by profanity).
- ♦ Feel that is a great saying.
- ♦ What the objective goal is would be ok.
- ♦ Only when rainwater is suppose to go down the drain.
- ♦ It sounds good.
- ♦ No dumping anything in the drains but water.
- ♦ Only rain down the drains no litter.
- ♦ Only water down the drain and not other waste.
- ♦ Don't put anything down the drain but water.
- ♦ It means to only put water down the drains.
- ♦ Means they don't want any chemicals down drain.
- ♦ That our water be clean going through storm drain.
- ♦ It means there's an attempt to keep only clean water, no toxins or chemicals.